

### Such a shame, but you are the one to blame!

Expression and perception of SHAME and GUILT: a universal or culture-specific phenomenon? A comparison of annotations by native and non-native Spanish and Dutch speakers in written text

Niki de Jonge Snr 2041860

Master's Thesis

Communication and Information Sciences

Specialization Communication and Cognition

School of Humanities and Digital Sciences
Tilburg University, Tilburg

Supervisors: N. Braun & Dr. M. Goudbeek
Second reader: L. Oversteegen

July 2020

#### Abstract

The debate on the universality versus cultural specificity of emotions has been going on for a long time and studies have found mixed results. To add new insights to this controversial issue, the current study investigated whether the expression and perception of SHAME and GUILT in a text about a moral transgression are universal or culture-specific. This study consisted of two parts. In part I, native Dutch and Spanish speakers (N = 60) wrote a text in their native language and annotated these texts on the emotions they contained. The writing task induced them to write about situations that evoked the self-conscious emotions SHAME or GUILT. These emotions were chosen in view of their inherent social nature, and therefore, proneness to vary between cultures. In part II, native and non-native Spanish and Dutch speakers (N = 60) annotated the texts, so that a cross-cultural comparison could be made. The outcomes on three measures of emotion annotation in text, differing in operationalization of SHAME and GUILT, were expected to vary between participants belonging to collectivistic and individualistic cultures: main emotion category in the text, number of words and sentences indicating SHAME and GUILT, and (perceived) intensity of SHAME and GUILT felt by the author. As such, these annotations were compared between authors and readers of the Spanish and Dutch nationality. Interrater agreement measures were used to determine if annotation agreement was, as hypothesized, higher when the author and readers were of the same nationality. Empathy towards the author was expected to be universal among cultures and expected to be higher when the reader perceived the author to feel guilty rather than ashamed. Hypotheses testing yielded some significant results in line with predictions, mostly for the expression and perception of GUILT. Unexpectedly, several significant results were found in contrast with expectations, mostly for the expression and perception of SHAME. A cautionary conclusion is that the expression and perception of SHAME and GUILT in a text about a moral transgression is culture-specific to a certain extent. There was a significant effect of level of perceived SHAME felt by the author on empathy towards the author, but no significant effect of level of perceived GUILT felt by the author on empathy towards the author. Implications, limitations, and suggestions for future research are discussed.

*Keywords:* expression, perception, shame, guilt, written text, non-native speaker, cross-cultural differences, interrater agreement

### Acknowledgements

Firstly, I would like to thank my supervisors, Nadine Braun and Martijn Goudbeek, for all the feedback they gave me on my progress and the time and effort they spent for thinking with me about how to best conduct this study. I would also like to thank my second reader, Leonoor Oversteegen, for providing feedback on my research proposal. Moreover, many thanks to all the participants for sharing their personal stories and enabling this research to be possible. Last but definitely not least, I would like to thank my family and boyfriend for their unconditional support, all the moments they motivated me to continue working, and for reminding me to believe in myself.

### **Table of Contents**

Abstract	2
Acknowledgements	3
1. Introduction	7
2. The Current Study	12
3. Method	18
Participants	18
Materials	18
Writing task	18
Self- and other- annotation	19
Felt empathy towards authors.	20
Design and Procedure	20
Part I: Text production and self-annotation.	21
Part II: Other-annotation and empathy towards authors.	21
Data Analysis	22
4. Results	25
Manipulation Check	25
Emotional Experience: More SHAME felt by Spanish Authors and more GUILT felt by	
Dutch Authors	25

	Emotional Experience: More SHAME felt by Spanish Readers and more GUILT felt by	
	Dutch Readers	26
	Emotional experience: Higher Interrater Agreement for Ingroup Combinations of Authors	
	and Readers	26
	Linguistic Annotation: More SHAME felt by Spanish Authors and more GUILT felt by	
	Dutch Authors	27
	Linguistic Annotation: More SHAME felt by Spanish Readers and more GUILT felt by	
	Dutch Readers	29
	Linguistic Annotation: Higher Interrater Agreement for Ingroup Combinations of Authors	
	and Readers	29
	Intensity of Shame and Guilt: More SHAME felt by Spanish Authors and more GUILT felt	
	by Dutch Authors	31
	(Perceived) Intensity of Shame and Guilt: More SHAME felt by Spanish Readers and more	
	GUILT felt by Dutch Readers	32
	(Perceived) Intensity of Shame and Guilt: Higher Interrater Agreement for Ingroup	
	Combinations of Authors and Readers	33
	Link between Perceived Shame and Guilt and Empathy towards Authors	35
5	. Discussion and Conclusion	37
	Summary of the Results	37
	SHAME and GUILT results in line with hypotheses.	
	SHAME and GUILT results in contrast with hypotheses	
	DITENTE AND OUTET TOURS IN COMMON WITH HYPOHICACA	00

Results of empathy towards authors.	43
Theoretical and Practical Implications	44
Limitations and Suggestions for Future Research	46
Conclusion	49
References	50
Notes	57
Appendices	58
A. Recruitment Texts	58
B. Information Letters	62
C. Consent Forms	70
D. Debriefing Forms	72
E. Descriptives of Text Annotations	78
F. Examples of Dutch and Spanish Texts and Associated Annotations	80
List of Tables and Figures	88

#### 1. Introduction

Human interaction revolves around communication. Sharing information, opinions, thoughts, and emotions is a day-to-day practice. Still, it is not an easy job. Especially in the case of emotions, achieving others' understanding of what you feel might be an endeavor. For example, what if your conversation partner does not experience the same range of emotions as you do? Research into which emotions exist started as early as Charles Darwin's studies in the 1870s (Darwin, 1872). Darwin claimed that there are six basic emotions that are common to all human cultures: happiness, sadness, surprise, anger, fear, and disgust. These emotions can be said to be biologically hard-wired into our brains. At the time, many scientists did not agree with this theory. However, nearly one hundred years later, Paul Ekman's research on the universality of facial expressions showed the first evidence that Darwin's theory concerning universal basic emotions was correct (Ekman, 1969). Nonetheless, more social emotions such as guilt, shame, pity, and relief might not be perceived the same by all humans. Other influential research that has shed its light on emotions is based in appraisal theory. The theory implies that emotions are elicited by evaluations of events and situations (Roseman, 2001). Thus, not events themselves, but rather the automatic, and often involuntary, interpretations of those events are what cause emotions. Since interpretation is not unambiguous, different individuals experiencing the same situation might evaluate it differently, which leads them to perceive different emotions. Moreover, cultural differences might be reflected in emotional language. For example, Dutch people are in general very direct and have no problem with sharing their thoughts and feelings in a discussion. On the other hand, Spanish people usually try to avoid confrontations and do not tell what they think or feel, as they do not want to hurt the other person's feelings. Besides, even when emotions are perceived similarly, often there is no one-on-one match between languages in the words they have to express feelings. Nonetheless, there might be a certain amount of equivalence across languages regarding the meaning of certain emotion concepts, that is, emotion semantics. This can be explained by the dialect theory of emotion, which acknowledges the cultural background of both the expresser and perceiver of the emotion. Emotional expression might be a universal language, but just as with other languages, it is likely that dialects exist. These dialects are based on cultural differences acquired through social learning and subtly nuance the way in which emotions are expressed and understood (Elfenbein & Ambady, 2002, 2003a).

Language indeed can be a strong means of defining and ordering emotions. This has encouraged many scholars into investigating whether, and to what extent, emotions vary across cultures (see, e.g., Elfenbein & Ambady, 2002; Izard, 1971; Markus & Kitayama, 1991; Ogorkova, Soriano Salinas, & Lehr, 2012; Romney, Moore, & Rusch, 1997; Russell, 1994). This debate on universality versus cultural specificity of emotions, both perception and expression, has been going on for a long time. According to the universal or evolutionary perspective, emotions are expressed and interpreted in more or less the same way by all human beings (Ekman, 1992). Contrastingly, the culture-specific or social constructivist perspective holds that emotions are expressed and interpreted differently across cultures and languages (Mesquita & Frijda, 1992). There is an abundance on empirical studies investigating this fundamental issue on the universality of emotions, and evidence has been found for both perspectives.

To illustrate this, several studies have focused on emotions as conveyed through facial and bodily expressions but came to different conclusions. For example, various studies report that facial expressions representing the basic emotions are recognized universally (Ekman, 1992; Gudykunst & Ting-Toomey, 1988; Izard, 1971). Moreover, a recent study of Volynets, Glerean, Hietanen, Hari, and Nummenmaa (2019) investigated bodily sensations associated with 13 emotions and found that people universally experience emotions in the body. That said, there are also recent studies that found that the perception of facial expression is influenced by culture (Crivelli, Jarillo, Russell, & Fernández-Dols, 2016; Gendron, Crivelli, & Barrett, 2018; Jack, Caldara, & Schyns, 2012; Yuki, Maddux, & Masuda, 2007). The evidence presented thus far demonstrates disagreement. Although studies concerning emotion perception often focused on facial emotion recognition, other domains have been investigated as well.

To answer the universality question, the lexical equivalence of emotion terms has also been examined by scholars. This has been done both by human and automatic approaches. Romney et al. (1997) measured similarities in semantic structure of 15 emotion terms across English and Japanese participants and found that all subjects shared, to a very large extent, internal cognitive representations of the semantic structure of emotion terms. Jackson et al. (2019) estimated emotion semantics across 2474 languages. They found both universal structures - since all languages appear to base emotions on hedonic valence and physiological activation -

and cultural variation, such that geographically close language families tend to classify emotion concepts in a more similar way. Ogorkova et al. (2012) studied the lexicalization of specific emotion domains across five European languages and concluded that differences of individualistic and collectivistic cultures are reflected in language use. Fontaine, Scherer, and Soriano (2013) developed the GRID questionnaire, an instrument to assess the meaning of emotion terms in different languages, based in appraisal theory. The authors suggest that the semantic space covered by the emotion terms can be represented by a four-dimensional structure used to determine meaning differences between cultural and linguistic groups: valence, power, arousal, and novelty. Overall, these cases again show that scholars differ widely in terms of which emotion theory they support.

Thus, past research has revealed mixed results with regards to the expression and perception of emotions. Furthermore, earlier work has focused mainly on basic emotions and has not considered social emotions such as shame and guilt. Likewise, little attention has been devoted to differences in the expression and perception of emotions cross-culturally, since most studies only include English as the target language. Moreover, extant research did not incorporate cross-cultural investigations of emotion expression and perception in written texts. This is a gap in the literature as a major limitation of studying only emotion terms is that the emotion concepts are measured without their context in communication. To increase ecological validity, as compared with previous studies, it would be recommendable to study the occurrence of emotion in written texts that are used to communicate a certain message including emotional content.

Although some studies already examined interpretations of affect in short texts, such as in computer-mediated communication (Kato, Kato, & Akahori, 2007; Kruger, Epley, Parker, & Ng, 2005; Riordan & Trichtinger, 2017), this has not been done cross-culturally but only within a single culture. To the best of the author's knowledge, the only exception to date appears to be the study of Hautasaari, Yamashita, and Gao (2014) that reported about an experiment in which native English speakers and Japanese non-native English speakers rated the emotional valence in messages written by native English-speaking authors. They found that non-native speakers were significantly less accurate at detecting emotional valence in text, especially when the text contained highly negative words. In this study the researchers only used texts in one language,

but to be able to make a full cross-cultural comparison, it is necessary to include at least two languages. In addition, the only emotional cues that were involved were words, symbols, and emoticons. It would be interesting to also test additional cues, such as the intensity of the emotional experience and whether the text contains words and phrases that refer to other emotions than the most obvious one. Contrasting the ratings of authors' perspectives on these kinds of aspects with ratings of (non-) native readers may provide valuable insights as to how humans understand each other in communication. This is scientifically relevant as it will add empirical evidence to the fundamental question of universality versus cultural specificity of emotions. Moreover, from a societal perspective, it is important to understand the expression and perception of emotion in text further to be able to enhance the meaningfulness of communication. Indeed, whether cultural differences are small or large, communication is key to human interaction and understanding each other is more important than using exactly the same terms. That said, comprehending why cultural differences exist and how they influence conversations and the transfer of emotions is worthwhile to examine.

Possible explanations for cultural variability concerning emotions, apart from language, are display rules and the in-group advantage when assessing emotional displays. Display rules are "socially learned, probably quite early in life, and prescribe different procedures for the management of affect displays in various social settings, roles, etc." (Ekman & Friesen, 1969, p.75). So, they are learned, culture-specific rules and depend on social circumstances. These conventional rules determine which emotions you can show to whom, and in which situations. Display rules can be used to suppress, amplify, exaggerate, or mask an emotional expression. What is important to note here is that the rules might cause emotional expressions to *appear* culturally different for outsiders, while the actual *felt* emotions might be perceived similarly. Related to this is the concept of in-group advantage: we seem to understand emotions more accurately when they are expressed by members of our own culture (Matsumoto, 1990). Accuracy in understanding others' emotions is thus higher when display rules are congruent. In terms of understanding emotions from written text, it is then expected that native speakers will be better at determining the intended emotions of a native author than non-native speakers.

One way that is often used to distinguish between cultures is to make the distinction between individualistic versus collectivistic cultures. In individualistic cultures, members identify themselves as a unique person with their own wishes, desires, norms, and values. In collectivistic cultures members identify themselves as part of a group and stress the wishes, desires, norms, and values of this group above their own needs (Hofstede, 2001). Moreover, culture shapes human behavior through self-construal style, i.e., how people define themselves and their relation to others in their environment (Nisbett et al., 2001). Individualistic cultures encourage the 'independent self' construal, where people think of themselves as individuals that are independent and separate from the social context. Self-expression and self-autonomy are stressed. Collectivistic cultures stimulate the 'interdependent self' construal, where people think of themselves as highly interconnected to others and dependent on a larger social context. Social harmony and belongingness to a group are emphasized. According to Hofstede (2001) and Nisbett et al. (2001), Spain has a collectivistic culture that emphasizes the interdependent self, while The Netherlands can be described as an individualistic culture that underlines the independent self. Thus, comparing these two groups will enable a comparison across cultures that vary enough in terms of norms and values. A cautionary note here is that any differences to be found in expression and interpretation of emotions might either be due to the language participants speak (i.e., by means of processes related to linguistic relativity), or the culture they have. However, since language and culture are highly intertwined, it is very difficult to prevent this confounding factor. Indeed, for the purpose of this study being native in a language means having been raised with the respective language and belonging to the culture associated with it, i.e., being a native Spanish speaker means being part of the Spanish culture, while being a native Dutch speaker means being part of the Dutch culture. As such, comparing emotion evaluations of a text between native and non-native speakers of the language in which this text is written will contribute information about underlying cultural values playing a role in the evaluation process.

#### 2. The Current Study

This study will compare emotions cross-culturally and subsequently investigate the following research question: 'To what extent are the expression and perception of the emotions SHAME and GUILT in text universal or culture-specific?'. Since previous studies have shown that the answer to the universality issue is not straightforward, no black-and-white division was used in formulating this question, but rather the relative universality of emotions will be investigated. To provide an answer to the research question, two tasks will be conducted by participants via an online Qualtrics survey. First, a text production task will be performed by native Spanish and native Dutch participants, for which they need to recall a situation in which they did something wrong and which involved other people. Expression of emotions in this study thus means indicating the internal affective state of oneself after a certain experience by providing a written description of that experience. Second, an evaluative task will be performed by Spanish non-native Dutch speakers and Dutch non-native Spanish speakers. Ratings and annotations of emotions by authors and readers of the texts will enable comparison across cultures of emotion expression and perception. *Perception of emotions* in this study means indicating the internal affective state of someone else after a certain experience by reading and assessing their written description of that experience. Perceived emotions by readers do not necessarily equal the emotions intended by authors. To assess whether there is a gap between expression and perception, both authors and readers will annotate the emotions in the text. Annotation means identifying individual words and phrases in the text and assigning them to a certain emotion category. The annotation of emotions in a text by the author itself is called selfannotation, while annotation performed by someone else than the author is called otherannotation.

This study will focus on differences between the expression and perception of the emotions SHAME and GUILT. These are inherently social emotions and, therefore, prone to vary between cultures. The social nature can be explained by the fact that to feel these emotions, other people need to be involved. Both SHAME and GUILT are said to be self-conscious emotions (Lewis, 2000), as they require self-evaluative processes (self-awareness; self-representation) in which an individual must reflect on his or her behavior and attributes the cause of the emotion-eliciting event as internal, i.e., blames the self for the situation. In this self-evaluation process,

individuals compare aspects of the self with social and normative standards (Tracy & Robins, 2004). Thus, apart from being social emotions, SHAME and GULT can also be called moral emotions. Both are negative affective states and occur after an event in which an individual violated some norm or rule. This wrongdoing is referred to as a moral transgression. An important distinction is the public versus private experience of the wrongdoing. GUILT can be described as a private feeling that is elicited by one's own negative self-evaluation. The focus is on a tendency to rectify the wrong behavior. On the contrary, SHAME can be described as a public feeling caused by one's fear of others' negative evaluations. Thus, the moral transgressor is concerned that his or her self-identity might be damaged (Lewis, 2000; Miceli & Castelfranchi, 2018).

These differences between SHAME and GUILT can be linked to the distinction between cultures made by Hofstede (2001) and Nisbett et al. (2001). Cultural differences in self-construal can cause differences in emotion expression and perception. Social norms are internalized, and some cultures emphasize GUILT to regulate behavior, while others focus on SHAME. In collectivistic cultures that emphasize the interdependent self, the fear of public exposure of one's fault will lead people to be ashamed for not fulfilling group expectations, and they will probably seek to restore their honor from their community. Thus, Spanish people will express and perceive more SHAME than GUILT after a moral transgression. By contrast, in individualistic cultures that underline the independent self, the focus on responsibility for one's faults and harmful effects on others will lead people to feel guilty about their behavior. Hence, Dutch people will express and perceive more GUILT than SHAME after a moral transgression. The hypotheses do not specify the language used in the text, as people are expected to express their feelings and perceive feelings in texts of others following their own, well entrenched cultural values. As such, it is irrelevant whether they read a text in Dutch or Spanish. In-group combinations (author and readers of the same nationality) are expected to show higher agreement than out-group combinations (author and reader differ in nationality), as explained by the concept of in-group advantage: we seem to understand emotions more accurately when they are expressed by members of our own culture (Matsumoto, 1990; Elfenbein & Ambady, 2003b). In terms of understanding emotions from written text, it is then expected that native speakers will be better in determining the intended emotions of a native author than non-native speakers.

The hypotheses that were developed regarding the cultural specificity of the expression and perception of emotions are presented below. They differ in how SHAME and GUILT are operationalized, as will be explained in the Method section.

# Emotional Experience: More SHAME felt by Spanish Authors and more GUILT felt by Dutch Authors

**H1a.** Spanish authors who wrote a text about a moral transgression they committed are more likely than Dutch authors to indicate shame as the emotion category that is most present in this text.

**H1b.** Dutch authors who wrote a text about a moral transgression they committed are more likely than Spanish authors to indicate guilt as the emotion category that is most present in this text.

# Emotional Experience: More SHAME felt by Spanish Readers and more GUILT felt by Dutch Readers

H1c. Spanish readers are more likely than Dutch readers to indicate shame as the emotion category that is most present in a text about a moral transgression committed by someone else.

H1d. Dutch readers are more likely than Spanish readers to indicate guilt as the emotion category that is most present in a text about a moral transgression committed by someone else.

### **Emotional Experience: Higher Interrater Agreement for Ingroup Combinations of Authors** and Readers

**H1e.** Interrater agreement on the emotion category that is most present in the text will be higher between a Spanish author and Spanish readers than between a Spanish author and Dutch readers.

**H1f.** Interrater agreement on the emotion category that is most present in the text will be higher between a Dutch author and Dutch readers than between a Dutch author and Spanish readers.

# Linguistic Annotation: More SHAME felt by Spanish Authors and more GUILT felt by Dutch Authors

**H2a.** Spanish authors who wrote a text about a moral transgression they committed are more likely than Dutch authors to annotate words and sentences in this text as indicating shame.

**H2b.** Dutch authors who wrote a text about a moral transgression they committed are more likely than Spanish authors to annotate words and sentences in this text as indicating guilt.

### Linguistic Annotation: More SHAME felt by Spanish Readers and more GUILT felt by Dutch Readers

**H2c.** Spanish readers are more likely than Dutch readers to annotate words and sentences as indicating shame in a text about a moral transgression committed by someone else.

**H2d.** Dutch readers are more likely than Spanish readers to annotate words and sentences as indicating guilt in a text about a moral transgression committed by someone else.

### Linguistic Annotation: Higher Interrater Agreement for Ingroup Combinations of Authors and Readers

**H2e.** Interrater agreement on the number of words and sentences indicating guilt and shame will be higher between a Spanish author and Spanish readers than between a Spanish author and Dutch readers.

**H2f.** Interrater agreement on the number of words and sentences indicating guilt and shame will be higher between a Dutch author and Dutch readers than between a Dutch author and Spanish readers.

# Intensity of Shame and Guilt: More SHAME felt by Spanish Authors and more GUILT felt by Dutch Authors

**H3a.** Spanish authors who wrote a text about a moral transgression they committed are more likely than Dutch authors to indicate a high intensity of shame felt after the event.

**H3b.** Dutch authors who wrote a text about a moral transgression they committed are more likely than Spanish authors to indicate a high intensity of guilt felt after the event.

# Perceived Intensity of Shame and Guilt: More SHAME felt by Spanish Readers and more GUILT felt by Dutch Readers

H3c. Spanish readers are more likely than Dutch readers to indicate a high intensity of shame felt after the event by the author of a text about a moral transgression he or she committed.

H3d. Dutch readers are more likely than Spanish readers to indicate a high intensity of guilt felt after the event by the author of a text about a moral transgression he or she committed.

### (Perceived) Intensity of Shame and Guilt: Higher Interrater Agreement for Ingroup Combinations of Authors and Readers

**H3e.** Interrater agreement on the intensity of guilt and shame felt by the author will be higher between a Spanish author and Spanish readers than between a Spanish author and Dutch readers.

**H3f.** Interrater agreement on the intensity of guilt and shame felt by the author will be higher between a Dutch author and Dutch readers than between a Dutch author and Spanish readers.

Apart from testing to what extent emotion expression and perception differ across cultures, this study will also test how much empathy readers have for authors after reading their written emotion expressions. It is expected that the tendency to feel empathy for someone else is more likely to be a universal than a culture-specific concept. *Empathy* in this study means understanding why someone else acted in a certain way, liking someone else, and wanting to forgive the other person. The amount of empathy one will show towards someone else depends to a large extent on this other person's behavior (Stearns & Parrott, 2012). Especially in the case of emotions that are more social in nature, such as GUILT and SHAME, expressing them after a certain event has a strong impact on empathy impressions formed by observers. In addition to the classification as social emotions, both SHAME and GUILT are moral emotions and are often felt after events that involve others. However, they differ in the perspective the moral wrongdoer takes after his or her action. Someone who feels ashamed wants to escape from the social situation and will act defensively and with distance. Someone who feels guilty, on the other hand, will be likely to engage in reparative actions such as apologies (Tangney, Stuewig, & Mashek, 2007). Research from Stearns and Parrott (2012) shows that expressing a desire to apologize when feeling *guilty* results in more positive impressions by others than do reputational concerns

when feeling *ashamed*. Moreover, GUILT is correlated with perspective taking and empathetic concern for others, whereas SHAME is negatively correlated with other-orientated empathy but positively correlated with narcissistic concerns and an egocentric focus on one's own distress (Tangney et al., 2007; Yang, Yang, & Chiou, 2010). It is hard to imagine that anyone would sympathize with someone that is only concerned about his or her own feelings and does not show any interest in others involved in the situation. Therefore, it is expected that, when reading texts of authors who did something wrong and show SHAME afterwards, readers will not be empathetic towards these authors. Contrastively, while reading texts of authors who did something wrong and show GUILT afterwards, readers will be empathetic towards these authors. These empathetic feelings towards authors will appear regardless of the culture to which the reader belongs. Thus, the following hypotheses regarding the universality of empathy were formulated:

### Link between Perceived Shame and Guilt and Empathy towards Authors

**H4a.** People who committed a moral transgression and are perceived by others to feel ashamed about this (and thus are perceived to be concerned about their own identity) will receive less empathy from others than people who are perceived by others to feel guilty.

**H4b.** People who committed a moral transgression and are perceived by others to feel guilty about this (and thus are perceived to be concerned about the effects of their behavior on others) will receive more empathy from others than people who are perceived by others to feel ashamed.

The experimental design and data analysis procedure to answer the hypotheses are outlined in section three. The results for hypotheses testing are presented in section four. The fifth section discusses the results, provides theoretical and practical implications, discusses limitations of the study, and offers recommendations for further research. Subsequently, references and notes are listed. Finally, appendices and a list of tables and figures are provided.

#### 3. Method

#### **Participants**

In part I of the study, 60 participants (46 women,  $M_{age} = 27.18$ , SD = 10.61) were instructed to conduct a text production and self-annotation task. From these participants, 30 were native Spanish speakers and 30 were native Dutch speakers. The highest completed education level was either secondary education (N=8), MBO/Título de Técnico (N=6), HBO Bachelor/Título de Bachiller (N=29), HBO Master/Título de Bachiller (N=1), WO Bachelor/Título de Graduado (N=7), or WO Master/Máster Universitario (N=9).

In part II of the study, 60 participants (43 women,  $M_{age} = 29.32$ , SD = 6.91) annotated the texts from the first part and indicated their empathy towards the authors. Of these participants, 30 were native in Spanish and proficient in Dutch, while the other 30 were native in Dutch and proficient in Spanish. The participants all had at least a B1 level of the language in which they were non-native, such that they were functionally bilingual enough to read and annotate the texts. Participants self-evaluated their level of the non-native language according to the Common European Framework of Reference, in Dutch known as Europees Referentie Kader (ERK) and in Spanish known as Marco Común Europeo de Referencia (MCER). The level of Spanish by the Dutch native speakers was either B1 (N=8), B2 (N=16), or C1 (N=6). The level of Dutch by the Spanish native speakers was either B1 (N=11), B2 (N=11), C1 (N=5), or C2 (N=3). The highest completed education level was either MBO/Título de Técnico (N=1), HBO Bachelor/Título de Bachiller (N=20), or WO Master/Máster Universitario (N=27).

Participation in this study was on a voluntary basis. Participants were recruited via the researcher's personal network and via Facebook groups (see Appendix A for recruitment texts). They did not receive compensation for their efforts.

#### **Materials**

**Writing task.** The first part of the study was a production task in which native Spanish and native Dutch participants were instructed to describe a situation in which they felt SHAME or GUILT. Participants were asked to recall emotion-eliciting situations and write about those.

The instruction was as follows: 'Please write about a situation in which you did something wrong and others were involved. Describe how you felt afterwards. Take your time and try to remember all the details about this experience. Please be as elaborative as you can but keep your text to a maximum of 300 words (approximately 30 sentences). You can continue after five minutes, but if you have not finished by then please take all the time you need to do so.' This formulation was chosen to avoid priming participants with specific emotion terms, as this study is investigating which people (belonging to which cultures) will express SHAME or GUILT when they write about a moral transgression they committed. The participants all wrote one text, resulting in a total of 60 texts produced.

Self- and other- annotation. Both authors and readers of the produced texts annotated them on the emotions they contained. Firstly, participants gave an overall rating of the text in terms of which emotion category they thought was most present. This was done using the Dropdown List format of Qualtrics. Participants answered the question: 'Which emotion category do you think is most present in the text?' by selecting one of the 10 emotion categories from the dropdown list. SHAME and GUILT were among the options to choose from, as well as the ones used in the word and sentence annotation task (see below). This question about main emotion category present in the text also served as a manipulation check.

Secondly, participants rated texts on several linguistic markers that make feelings apparent. They did so on a word- and sentence-level. For authors, the Piped Text option from Qualtrics was used as texts needed to be produced and annotated in the same questionnaire. The text resulting from the writing task was piped into a new question to annotate words and sentences. For readers, the texts were already available from the first part of the study. For both authors and readers, text boxes were provided for emotion categories such that authors could copy and paste relevant text parts in the appropriate boxes. Participants were instructed to place a certain word or sentence under only one emotion category. Participants could choose among ten categories to evaluate the text. Embedded among these choices were the emotions of interest (SHAME and GUILT), as well as other self-reflective 'negative' emotions (ENVY, JEALOUSY, CONTEMPT) and self-reflective 'positive' emotions (PRIDE, COMPASSION, GRATITUDE). Since participants were able to rate every word that they thought expressed emotion, information could be obtained about the 'emotional flow' of the texts. It is likely that the produced texts

started with positive emotions, since participants first described the situation before they committed a moral transgression, which was probably indicated by more positive words. For this reason, and to provide an equal number of positive and negative emotions, the positive basic emotions JOY and AMUSEMENT were also included to choose from.

Lastly, the intensity of the experience, i.e., the level of arousal, was measured. For writers of the texts (Part I), this was done by the items: 'I felt guilty after the experience' and 'I felt ashamed after the experience', each rated on a 5-point Likert scale (1 = strongly disagree; 5 = strongly agree). For readers (Part II), the items were: 'I think the author felt guilty after the experience' and 'I think the author was ashamed after the experience', each rated on a 5-point Likert scale (1 = strongly disagree; 5 = strongly agree). This way, authors' and readers' perceptions of emotions could be compared across cultures. Since these items were asked last, priming of participants with the constructs SHAME and GUILT during annotation of emotions in the texts was avoided. Moreover, to fully exclude the possibility for priming, participants were not allowed to return to prior questions such that prior answers could not be changed.

Felt empathy towards authors. Participants of the second part of the study were asked to indicate how much empathy they felt for the author of the text. This was done by three items: 'I like the author based on the text s/he wrote', 'I can understand why the author of the text acted as s/he did', and 'I would forgive the author of the text', each rated on a 5-point Likert scale (1 =  $strongly\ disagree$ ; 5 =  $strongly\ agree$ ). A higher mean score on this scale was an indicator for more empathy. The items had a high internal consistency (Cronbach's  $\alpha$  = .906).

#### **Design and Procedure**

This study had a between-subjects design with four conditions:

- Native Spanish speakers who completed a writing and annotation task (N=30)
- Native Dutch speakers who completed a writing and annotation task (N=30)
- Spanish non-native Dutch speakers who completed an annotation task (N=30)
- Dutch non-native Spanish speakers who completed an annotation task (N=30)

Instructions and stimulus materials for participants were always in their native language. Especially in the second part of the study, where participants read texts in both their native language and a foreign language, this was important to avoid priming cultural values other than the native ones. All material was first developed in Dutch, since this is the mother tongue of the researcher. Subsequently, translation into Spanish was done using the translation back-translation procedure (Brislin, 1980), in which the researcher translated the material into Spanish and an independent native Spanish speaker translated this back to Dutch. This way, maximum equivalence between instructions was obtained.

Part I: Text production and self-annotation. The writing and self-annotation task were performed via an online Qualtrics survey. Participants were first informed about the study and gave their consent (see Appendix B for information letters and Appendix C for consent forms). After that, instructions were given for the writing task and a text was produced. Subsequently, participants self-annotated their texts. Instructions were given on how to do this. The survey ended with asking consent for using the texts produced in a follow-up study. After this, demographic questions concerning age, gender, and level of education were completed, after which participants were thanked and debriefed (see Appendix D for debriefing forms).

Part II: Other-annotation and empathy towards authors. The other-annotation task was also conducted via on online Qualtrics survey. Two groups of bilingual participants (native Dutch-proficient Spanish and native Spanish-proficient Dutch) annotated all the texts produced in the first part of the study. Participants were first informed about the study and were asked for consent (see Appendix B for information letters and Appendix C for consent forms). The readers were randomly assigned to one of 15 text conditions. Each condition included two Dutch and two Spanish texts. Thus, each participant read four texts in total. Spanish participants always first read the two Spanish texts and Dutch participants always first read the two Dutch texts, to ease participants into the survey and assure continuation. This design resulted in every text being read by two Dutch readers and two Spanish readers. After consent was given, instructions were given for the annotation task. Participants could take as much time as necessary to complete this task. They could use an online dictionary if needed. Continuing the study, participants were asked to indicate how much empathy they felt for the author of the text. Again, the survey ended with

demographic questions concerning age, gender, level of education, and level of the non-native language, after which participants were thanked and debriefed (see Appendix D for debriefing forms).

Upon completion of the first and second part of the study, every written text was annotated by five people: the author (either Dutch or Spanish), two Dutch readers and two Spanish readers.

### **Data Analysis**

In this section the different statistical tests used to answer the hypotheses are explained. For every set of hypotheses, SHAME and GUILT were operationalized differently. Given the different levels of measurement of the variables involved, three different measures of interrater agreement were calculated. All measures chosen were suited for data that consists of non-unique raters. The term non-unique implies that it is not assumed that the same raters have assessed all subjects. For example, if the same 30 bilingual participants rated all 60 texts, these 30 bilingual participants would be described as unique raters. However, in this study, the author and four randomly selected readers view and rate the first text. Then, another author and four randomly selected readers view and rate the second text, and so on, until all 60 texts have been rated. Therefore, the raters in this study are described as non-unique.

# Emotional Experience: More SHAME felt by Spanish Authors and Readers, More GUILT felt by Dutch Authors and readers

To test the expected relationships between nationality and main emotion category present in the text (hypotheses 1 a-d), Fisher's exact tests of independence were conducted. Chi-squared tests could not be used, since the assumption that "no more than 20% of the expected counts are less than 5 and all individual expected counts are 1 or greater" (Yates, Moore & McCabe, 1999, p. 734) was violated for both the Chi-squared tests with authors and readers. This is due to the fact that AMUSEMENT and COMPASSION were chosen by only three authors as the main emotion category in the text, while ENVY, PRIDE, JOY and AMUSEMENT were chosen only a small amount of times by readers as the main emotion category in the text. The dependent variables for the Fisher's exact tests of independence were the proportions of SHAME and GUILT annotated as the main emotion category in the text. The independent variables for

hypotheses 1a and 1b were nationality of the author (Dutch or Spanish) and for hypotheses 1c and 1d nationality of the reader (Dutch or Spanish).

## **Emotional Experience: Higher Interrater Agreement for Ingroup Combinations of Authors** and Readers

For hypotheses 1e and 1f, concerning the main emotion category of the text (nominal data), Fleiss' kappa ( $\kappa$ ) was used. The advantage of this method is that it can be used when "the raters responsible for rating one subject are not assumed to be the same as those responsible for rating another" (Fleiss, Levin & Paik, 2003, p. 610-611).

# Linguistic Annotation: More SHAME felt by Spanish Authors and Readers, More GUILT felt by Dutch Authors and Readers

Independent samples t-tests were conducted to test the expected differences between nationality and number of words and sentences indicated as SHAME and GUILT (hypotheses 2 a-d). The dependent variables were the number of words and sentences indicating SHAME and GUILT. The independent variables for hypotheses 2a and 2b were nationality of the author (Dutch or Spanish) and for hypotheses 2c and 2d nationality of the reader (Dutch or Spanish).

## Linguistic Annotation: Higher Interrater Agreement for Ingroup Combinations of Authors and Readers

For hypotheses 2e and 2f, regarding the number of words and sentences indicating SHAME and GUILT, the Intraclass Correlation Coefficient (ICC) was calculated, taking into account the quantitative, continuous nature of the data. Since the design used inconsistent raters across the ratees, the One-Way Random model of ICC was used, in which Text is a random effect, and Rater is viewed as measurement error. Since the mean rating is of interest, Average Measures values were used. Absolute Agreement was selected as Type (Shrout & Fleiss, 1979). The samples had similar between-subject variance. Therefore, ICCs could be compared (Shrout & Fleiss, 1979). These variances will be reported with the ICC values in the Results section.

# (Perceived) Intensity of Shame and Guilt: More SHAME felt by Spanish Authors and Readers, More GUILT felt by Dutch Authors and Readers

To test the expected differences between nationality and (perceived) intensity of SHAME and GUILT felt by the author (hypotheses 3 a-d), independent samples t-tests were used. The dependent variables were the (perceived) intensity of SHAME and GUILT felt by the author as indicated on a 5-point Likert scale. The independent variables for hypotheses 3a and 3b were nationality of the author (Dutch or Spanish) and for hypotheses 3c and 3d nationality of the reader (Dutch or Spanish).

### (Perceived) Intensity of Shame and Guilt: Higher Interrater Agreement for Ingroup Combinations of Authors and Readers

For hypotheses 3e and 3f, with respect to the (perceived) intensity of SHAME and GUILT felt by the author, Kendall's coefficient of concordance (Kendall's W) was calculated. Although Fleiss' kappa (used for the Emotional Experience hypotheses) can also be used for ordinal data, it only takes disagreement between raters into account, but not the degree of that disagreement. Kendall's W does take ordering into consideration. For instance, Kendall's W would consider ratings of 1 and 5 for the same subject (on a 5-point Likert scale) as more disagreement than ratings of 4 and 5 (Siegel & Castellen, 1988).

### Link between Perceived Shame and Guilt and Empathy towards Authors

To test whether there were differences in empathy towards the author by level of perceived SHAME and GUILT felt by the author (hypotheses 4a and 4b), one-way ANOVAs were calculated. The dependent variables were the mean levels of empathy towards the author, based on three 5-point Likert scale items. The independent variables were perceived levels of SHAME and GUILT felt by the author as indicated on 5-point Likert scale items.

#### 4. Results

On average, the Dutch texts consisted of 167.37 words (SD = 77.73) and the Spanish texts consisted of 168.27 words (SD = 69.77). Common topics that appeared in the texts were mistakes committed in the school environment (e.g., forgetting parts during a presentation; committing fraud; contributing little to group work), mistakes committed on the work floor (e.g., forgetting to do something; lying; creating a misunderstanding), causing a car accident or car damage, insulting someone, blaming others for own actions, passing on secrets, and disappointing others. The descriptive statistics for the annotations of main emotion category, number of words and sentences indicating SHAME and GUILT, and (perceived) intensity of SHAME and GUILT can be found in Appendix E. Four examples of Dutch and Spanish texts and associated annotations can be found in Appendix F.

#### **Manipulation Check**

Of the 60 writers, 57 (95%) indicated SHAME or GUILT as the emotion category most present in the text. Only one Spanish author indicated that her text conveyed mainly AMUSEMENT and two Dutch authors indicated that their texts mainly conveyed COMPASSION. Thus, the instruction for the writing task was successful.

### Emotional Experience: More SHAME felt by Spanish Authors and more GUILT felt by Dutch Authors

A Fisher's exact test of independence was conducted to examine the relation between nationality of the author and the indicated main emotion in the text. Dutch authors roughly indicated GUILT and SHAME a similar amount of times, 50% and 43% respectively. Contradictory to expectations, Spanish authors indicated more GUILT (67%) than SHAME (30%). However, the results of the Fisher's exact test were not significant (p = .192), suggesting that nationality of the author and the indicated main emotion in the text were not related to one another. Thus, hypotheses 1a and 1b are rejected. Spanish authors were not more likely to indicate SHAME as the main emotion category in their text about a moral transgression, and Dutch authors did not indicate more GUILT as the main emotion category when describing their moral transgression.

# Emotional Experience: More SHAME felt by Spanish Readers and more GUILT felt by Dutch Readers

To examine the relation between nationality of the reader and the indicated main emotion in the text, a Fisher's exact test of independence was conducted. As expected, Dutch readers indicated more GUILT (50%) than SHAME (28%). Contradictory to expectations, Spanish readers also indicated more GUILT (59%) than SHAME (22%). However, the results of the Fisher's exact test were not significant (p = .501), suggesting that nationality of the reader and the indicated main emotion in the text were not related to one another. Thus, hypotheses 1c and 1d are rejected. Spanish readers were not more likely to indicate SHAME as the main emotion category in a text about a moral transgression, and Dutch readers did not indicate more GUILT as the main emotion category when reading about a moral transgression committed by someone else.

## **Emotional experience: Higher Interrater Agreement for Ingroup Combinations of Authors** and Readers

To determine if there was agreement between annotators on which main emotion category the texts conveyed, interrater agreement was assessed using Fleiss' kappa ( $\kappa$ ). Table 1 displays the overall kappa values for the Spanish texts. Individual kappa results per main emotion category revealed that the author and the two Spanish annotators were in better agreement when assigning GUILT ( $\kappa$  = .565) than SHAME ( $\kappa$  = .292). Individual kappa results per main emotion category revealed that the author and the two Dutch annotators were also in better agreement when assigning GUILT ( $\kappa$  = .651) than SHAME ( $\kappa$  = .586). To test whether the overall kappa values are statistically different, an overall kappa score and chi squared statistic were calculated.  $^2$   $\hat{\kappa}$  overall was found to be .218 and  $\chi^2$  equal  $\kappa$ 's was found to be 6.804 with 1 df. This is larger than the critical value 3.841, so it can be concluded that the two overall kappa values (Spanish author and Spanish readers versus Spanish author and Dutch readers) are statistically different at a 95% confidence level. Unexpectedly, interrater agreement was higher when the author and readers were of a different nationality. Thus, hypothesis 1e is rejected and the results suggest the opposite of what was expected. Interrater agreement on the emotion category that is most present in the text was higher between a Spanish author and Dutch readers than between a Spanish author and

Spanish readers. Nonetheless, agreement between Spanish authors and Dutch readers of  $\kappa = .343$  only represents fair agreement (Landis & Koch, 1977).

Table 1

Interrater Agreement Using Fleiss' kappa (κ) for the Spanish Texts

			95% Confidence	Interval
Raters	κ	p value	Lower Bound	Upper Bound
Author + Spanish readers	.105	.004	018	.228
Author + Dutch readers	.343	<.001	.213	.472

For the Dutch texts, interrater agreement between the author and the two Dutch annotators was found to be  $\kappa$  = .260 (p =.001), 95% CI [0.110, 0.411]). Individual kappa results per main emotion category revealed that annotators were in better agreement when assigning GUILT ( $\kappa$  = .673) than SHAME ( $\kappa$  = .481). Interrater agreement between the author and the two Spanish annotators was found to be  $\kappa$  = .400 (p < .001), 95% CI [0.248,0.552]. Individual kappa results per main emotion category revealed that annotators were in better agreement when assigning GUILT ( $\kappa$  = .786) than SHAME ( $\kappa$  = .542). To test whether the kappa values are statistically different,  $^2$  an overall kappa score and chi squared statistic were calculated.  $\hat{\kappa}$  overall was found to be .329 and  $\chi^2$  equal  $\kappa$ 's was found to be 1.632 with 1 df. This is smaller than the critical value 3.841, so it can be concluded that the two overall kappa values (Dutch author and Dutch readers versus Dutch author and Spanish readers) are not statistically different at a 95% confidence level. Thus, hypothesis 1f is rejected. Interrater agreement on the emotion category that is most present in the text was not higher between a Dutch author and Dutch readers than between a Dutch author and Spanish readers.

# Linguistic Annotation: More SHAME felt by Spanish Authors and more GUILT felt by Dutch Authors

An independent-samples t-test was conducted to compare the number of words and sentences indicated as SHAME among Dutch and Spanish authors. As can be seen in Figure 1,

there was a significant difference between Dutch authors (M = 2.40, SD = 1.73) and Spanish authors (M = 1.40, SD = 1.30); t(58) = 2.53, p = .014. The difference represents a medium to large-sized effect, d = .62. Surprisingly, these results suggest that Dutch authors were more likely to annotate words and sentences as SHAME than Spanish authors, rejecting hypothesis 2a and suggesting an effect in the opposite direction. Spanish authors did not annotate more words and sentences as SHAME when analyzing their text about a moral transgression, but Dutch authors did seem to notice more SHAME in their texts.

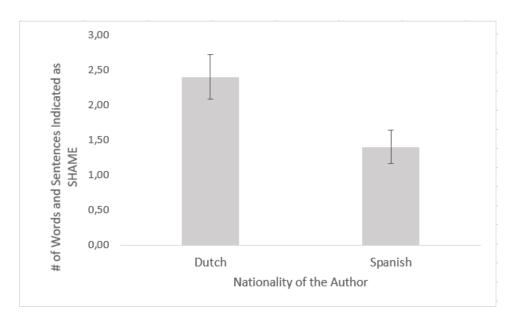


Figure 1. Number of Words and Sentences Indicated as SHAME by Dutch and Spanish Authors. Error bars depict standard errors.

To compare the number of words and sentences indicated as GUILT among Dutch and Spanish authors, an independent-samples t-test was conducted. Dutch authors indicated more words and sentences as indicating GUILT (M = 1.97, SD = 1.22) than Spanish authors (M = 1.93, SD = 1.68). However, this difference was not significant, t(58) = 0.088, p = .930. Therefore, hypothesis 2b cannot be supported. Dutch authors who wrote a text about a moral transgression they committed were not more likely than Spanish authors to annotate words and sentences in this text as indicating GUILT.

# Linguistic Annotation: More SHAME felt by Spanish Readers and more GUILT felt by Dutch Readers

To compare the number of words and sentences indicated as SHAME among Dutch and Spanish readers, an independent-samples t-test was conducted. There was no significant effect for nationality of the reader, t(238) = 0.296, p = .767, despite Dutch readers (M = 1.18, SD = 1.71) indicating more words and sentences as SHAME than Spanish readers (M = 1.12, SD = 1.77). Therefore, hypothesis 2c is rejected. Spanish readers did not annotate more words and sentences as SHAME when analyzing a text about a moral transgression. To compare the number of words and sentences indicated as GUILT among Dutch and Spanish readers, an independent-samples t-test was conducted. Dutch readers indicated more words and sentences as indicating GUILT (M = 2.48, SD = 2.20) than Spanish readers (M = 2.28, SD = 1.95). However, this difference was not significant, t(238) = 0.777, p = .438. Therefore, hypothesis 2d cannot be supported. Dutch readers who read a text about a moral transgression committed by someone else were not more likely than Spanish readers to annotate words and sentences in this text as indicating GUILT.

# **Linguistic Annotation: Higher Interrater Agreement for Ingroup Combinations of Authors** and Readers

To determine the extent of agreement between annotators on how many words and sentences conveyed SHAME and GUILT, their interrater reliability was assessed using the Intraclass Correlation Coefficient (ICC). Table 2 shows the ICCs for the Spanish texts. Interrater agreement on the number of words and sentences indicating SHAME was found to be moderate between the author and the two Spanish annotators, while it was found to be good, and thus higher, between the author and the two Dutch annotators. Between-subject variances from these two samples were .001 and .014, respectively. The results are in contradiction with hypothesis 2e. Unexpectedly, interrater agreement was higher when the author and readers were of a different nationality. Annotations of a Spanish author and Dutch readers coincided better than annotations of a Spanish author and Spanish readers. Interrater agreement on the number of words and sentences indicating GUILT was found to be moderate for both groups of raters, but higher between the author and the two Spanish annotators than between the author and the two Dutch annotators. Between-subject variances from these two samples were .047 and .001, respectively. These results are in line with hypothesis 2e, although the difference between ICCs is small.

Interrater agreement on the number of words and sentences indicating GUILT was higher between a Spanish author and Spanish readers than between a Spanish author and Dutch readers. In sum, hypothesis 2e was only partly supported. Interrater agreement on the number of words and sentences indicating GUILT was higher between a Spanish author and Spanish readers, but interrater agreement on the number of words and sentences indicating SHAME was higher between a Spanish author and Dutch readers.

Table 2

Interrater Agreement Using the Intraclass Correlation Coefficient (ICC) for the Spanish Texts

		95% Confidence	Interval
Raters	ICC (1,3)	Lower Bound	Upper Bound
SHAME			
Author + Spanish readers	.539	.158	.765
Author + Dutch readers	.801	.637	.898
GUILT			
Author + Spanish readers	.661	.381	.827
Author + Dutch readers	.631	.327	.812

Table 3 shows the ICCs for the Dutch texts. Interrater agreement on the number of words and sentences indicating SHAME was found to be moderate for both groups of raters, but higher between the author and the two Spanish annotators than between the author and the two Dutch annotators. Between-subject variances from these two samples were .863 and .858, respectively. These results are in contradiction with hypothesis 2f. Unexpectedly, interrater agreement was higher when the author and readers were of a different nationality. Annotations of a Dutch author and Spanish readers coincided better than annotations of a Dutch author and Dutch readers. Interrater agreement on the number of words and sentences indicating GUILT was found to be moderate for both groups of raters, but higher between the author and the two Spanish annotators than between the author and the two Dutch annotators. Between-subject variances from these two samples were .429 and .469, respectively. Again, these results show a different relationship than

the expected one. Interrater agreement on the number of words and sentences indicating GUILT was higher between a Dutch author and Spanish readers than between a Dutch author and Dutch readers. In sum, hypothesis 2f is rejected. Interrater agreement on the number of words and sentences indicating SHAME and GUILT was higher between a Dutch author and Spanish readers than between a Dutch author and Dutch readers.

Table 3

Interrater Agreement Using the Intraclass Correlation Coefficient (ICC) for the Dutch Texts

Raters	ICC (1,3)	95% Confidence Lower Bound	Interval Upper Bound
SHAME	100 (1,0)	20110120010	oppor Dound
Author + Dutch readers	.646	.354	.819
Author + Spanish readers	.654	.368	.823
GUILT	_		
Author + Dutch readers	.518	.120	.754
Author + Spanish readers	.591	.253	.791

# Intensity of Shame and Guilt: More SHAME felt by Spanish Authors and more GUILT felt by Dutch Authors

An independent-samples t-test was conducted to examine the expected differences between nationality of the author and intensity of SHAME felt after the experience. Given a violation of Levene's test for homogeneity of variances, F(1,58) = 5.11, p = .028, a t-test not assuming homogeneous variances was calculated. Dutch authors felt more *ashamed* (M = 4.30, SD = .70) than Spanish authors (M = 3.90, SD = 1.30). However, this difference was not significant, t(45) = 1.486, p = .144. Therefore, hypothesis 3a cannot be supported. Spanish authors who wrote a text about a moral transgression they committed did not indicate a higher intensity of SHAME felt after the experience than Dutch authors. An independent-samples t-test was conducted to examine the expected differences between nationality of the author and intensity of GUILT felt after the experience. Given a violation of Levene's test for homogeneity

of variances, F(1,58) = 30.62, p < .001, a t-test not assuming homogeneous variances was calculated. The results of this test indicated that there was a significant difference in intensity of GUILT felt between the two groups, t(36) = 2.24, p = .032. As depicted in Figure 2, Dutch authors felt more *guilty* (M = 4.43, SD = .57) than Spanish authors (M = 3.73, SD = 1.62). The difference represents a medium to large-sized effect, d = .56. In line with predictions, these results suggest that Dutch authors who wrote about their moral transgression were more likely to feel *guilty* than Spanish authors, supporting hypothesis 3b.

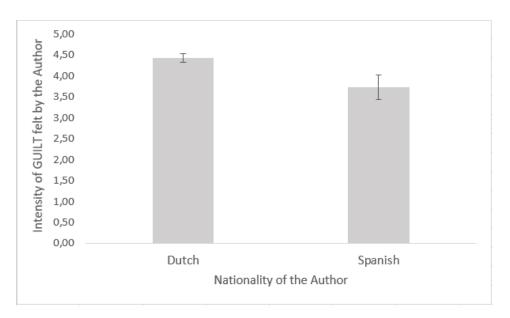


Figure 2. Intensity of GUILT felt by the Author as Indicated by Dutch and Spanish Authors. Error bars depict standard errors.

# (Perceived) Intensity of Shame and Guilt: More SHAME felt by Spanish Readers and more GUILT felt by Dutch Readers

An independent-samples t-test was conducted to examine the expected differences between nationality of the reader and perceived intensity of SHAME felt by the author after the experience. There was no significant effect for nationality of the reader, t(238) = -.482, p = .630, despite Spanish readers (M = 2.64, SD = 1.69) perceiving the author to feel more *ashamed* than Dutch readers (M = 2.53, SD = 1.79). Therefore, hypothesis 3c is rejected. Spanish readers did not indicate a higher intensity of SHAME felt after the event than Dutch readers. An independent-samples t-test was conducted to examine the expected differences between nationality of the reader and perceived intensity of GUILT felt by the author after the experience.

Given a violation of Levene's test for homogeneity of variances, F(1,238) = 4.21, p = .041, a test not assuming homogeneous variances was calculated. Spanish readers perceived the author to feel more *guilty* (M = 3.73, SD = 1.46) than Dutch readers (M = 3.58, SD = 1.55). However, this difference was not significant, t(237) = -.729, p = .467. Therefore, hypothesis 3d cannot be supported. Dutch readers did not indicate a higher intensity of GUILT felt after the event than Spanish readers.

### (Perceived) Intensity of Shame and Guilt: Higher Interrater Agreement for Ingroup Combinations of Authors and Readers

To determine if there was agreement between annotators on the intensity of SHAME and GUILT felt by the author, interrater agreement was assessed using Kendall's coefficient of concordance (Kendall's W). Table 4 displays Kendall's coefficients for the Spanish texts. Interrater agreement on the perceived intensity of SHAME felt by the author was found to be weak for both groups of raters, but higher between the author and the two Spanish annotators than between the author and the two Dutch annotators. These results are in line with H3e. Interrater agreement on how ashamed the author felt was higher between a Spanish author and Spanish readers than between a Spanish author and Dutch readers. Interrater agreement on the perceived intensity of GUILT felt by the author was found to be weak for both groups of raters, but higher between the author and the two Spanish annotators than between the author and the two Dutch annotators. These results are also in line with hypothesis 3e, although the difference between the W values is very small. Interrater agreement on how guilty the author felt was higher between a Spanish author and Spanish readers than between a Spanish author and Dutch readers. Taken together, H3e is supported, although it should be noted that agreement was found to be rather weak. Interrater agreement on the intensity of GUILT and SHAME felt by the author was higher between a Spanish author and Spanish readers than between a Spanish author and Dutch readers.

Table 4

Interrater Agreement Using Kendall's Coefficient of Concordance (W) for the Spanish Texts

Raters	W	p value
SHAME		
Author + Spanish	.267	< .001
readers		
Author + Dutch readers	.160	.008
GUILT		
Author + Spanish	.049	.233
readers		
Author + Dutch readers	.048	.235

Kendall's coefficients for the Dutch texts are shown in Table 5. Interrater agreement on the perceived intensity of SHAME felt by the author was found to be good for both groups of raters, but higher between the author and the two Dutch annotators than between the author and the two Spanish annotators. These results support H3f. Interrater agreement on how *ashamed* the author felt was higher between a Dutch author and Dutch readers than between a Dutch author and Spanish readers. Interrater agreement on the perceived intensity of GUILT felt by the author was found to be very weak for both groups of raters, but higher between the author and the two Dutch annotators than between the author and the two Spanish annotators. Although agreement was very low, the results are still in line with expectations. Interrater agreement on how *ashamed* the author felt was higher between a Dutch author and Dutch readers than between a Dutch author and Spanish readers. Thus, hypothesis 3f is supported, even though it should be noted that only for SHAME agreement was good, whereas for GUILT it was very weak. Interrater agreement on the intensity of GUILT and SHAME felt by the author was higher between a Dutch author and Dutch readers than between a Dutch author and Spanish readers.

Table 5

Interrater Agreement Using Kendall's Coefficient of Concordance (W) for the Dutch Texts

Raters	W	p value
SHAME		
Author + Dutch readers	.559	< .001
Author + Spanish readers	.513	< .001
GUILT		
Author + Dutch readers	.011	.729
Author + Spanish readers	.004	.899

### Link between Perceived Shame and Guilt and Empathy towards Authors

Unlike in the tests reported above, where the existence and amount of SHAME and GUILT represented the dependent variables, in this case SHAME and GUILT represented the independent variables. More specifically, the independent variables were perceived levels of SHAME and GUILT felt by the author as indicated on 5-point Likert scale items. Thus, the five levels of SHAME and GUILT were *strongly disagree*, *disagree*, *neutral*, *agree*, and *strongly agree*.

To test whether there were differences in empathy towards the author by level of perceived SHAME felt by the author, a one-way ANOVA was calculated. Given a violation of Levene's test for homogeneity of variances, F(4,235) = 4.42, p = .002, Welch's adjusted F ratio not assuming homogeneous variances was calculated. There was a significant effect of level of perceived SHAME felt by the author on empathy towards the author, *Welch's F*(4, 26.23) = 5.70, p = .002. The estimated omega squared ( $\omega^2 = .07$ ) indicated that approximately 7% of the total variation in empathy towards the author is attributable to differences between the five levels of perceived SHAME felt by the author.<sup>3</sup> Post hoc comparisons using the Games-Howell post hoc procedure (see Table 6) revealed that the only statistically significant difference is between *strongly disagree* and *strongly agree*, p < .001, with a medium to large-sized effect, d = .76. If people *strongly agreed* that the author felt *ashamed*, they showed more empathy (M = 3.87, SD = .97) than if they *strongly disagreed* that the author felt *ashamed* (M = 3.06, SD = 1.14).

Nonetheless, this result is in contradiction with expectations that empathy towards authors would be lower if authors are perceived as feeling *ashamed*. Therefore, hypothesis 4a is rejected. People who committed a moral transgression and were perceived by others to feel *ashamed* about this (and thus were perceived to be concerned about their own identity) received empathy from others, contrary to expectations.

Table 6

Post Hoc Results for Empathy Towards the Author by Level of Perceived SHAME felt by the Author

Level of Perceived SHAME	M (SD)			Mean Differences $(\bar{X}_i - \bar{X}_j)$	S	
		Strongly disagree	Disagree	Neutral	Agree	Strongly agree
Strongly disagree	3.06 (1.14)	disagree	23	54	44	80*
Disagree	3.29 (1.26)			31	21	57
Neutral	3.60 (0.60)				.10	27
Agree	3.50 (0.81)					37
Strongly agree	3.86 (0.97)					

*Note.* \* p < .05.

To test whether there were differences in empathy towards the author by level of perceived GUILT felt by the author, a one-way ANOVA was calculated. There was no significant effect of level of perceived GUILT felt by the author on empathy towards the author, F(4, 235) = 2.10, p = .082. Therefore, hypothesis 4b is rejected. People who committed a moral transgression and were perceived by others to feel *guilty* about this (and thus were perceived to be concerned about the effects of their behavior on others) did not receive more empathy from others than people who were not perceived to feel *guilty*.

#### 5. Discussion and Conclusion

The aim of this study was to investigate whether the expression and perception of SHAME and GUILT in a text about a moral transgression are universal or culture-specific. The Spanish and Dutch texts used in this study were all written in the first round of data collection. Participants performed a writing task which induced them to write about situations that evoked the self-conscious emotions SHAME or GUILT. These emotions were chosen in view of their inherent social nature, and therefore, proneness to vary between cultures. Native and non-native Spanish and Dutch speakers annotated the texts, so that a cross-cultural comparison could be made. The outcomes on three measures of emotion annotation in text were expected to differ between participants belonging to different cultures: main emotion category in the text, number of words and sentences indicating SHAME and GUILT, and (perceived) intensity of SHAME and GULT felt by the author. As such, scores on these measures were compared between authors and readers of the Spanish and Dutch nationality. Empathy towards the author was expected to be universal among cultures and expected to be higher when the reader perceived the author to feel guilty rather than ashamed. Interrater agreement measures were used to determine if annotation agreement was, as hypothesized, higher when the author and readers were of the same nationality. This section will first report and discuss the main results of the study. Subsequently, theoretical and practical implications will be provided, followed by an examination of the limitations of this study and suggestions for further research. Lastly, concluding remarks are formulated.

### **Summary of the Results**

SHAME and GUILT results in line with hypotheses. The analysis confirmed that interrater agreement on the number of words and sentences indicating GUILT was higher between a Spanish author and Spanish readers than between a Spanish author and Dutch readers, lending some support for hypothesis 2e. In line with predictions as well were the results that Dutch authors who wrote about a moral transgression they committed were more likely to feel *guilty* than Spanish authors, supporting hypothesis 3b. Moreover, interrater agreement on the intensity of GUILT and SHAME felt by the author was higher between a Spanish author and Spanish readers than between a Spanish author and Dutch readers, although it should be noted

that agreement was found to be rather weak. These results support hypothesis 3e. In addition, interrater agreement on the intensity of GUILT and SHAME felt by the author was higher between a Dutch author and Dutch readers than between a Dutch author and Spanish readers, even though it should be noted that only for SHAME agreement was good, whereas for GUILT it was very weak. These results support hypothesis 3f. All these findings are consistent with prior studies that indicated that members of a collectivistic culture (e.g., the Spanish culture), where the emphasis is on the interdependent self and the fear of public exposure of one's fault will lead people to be ashamed for not fulfilling group expectations, will express and perceive more SHAME than GUILT after a moral transgression (Lewis, 2000; Miceli & Castelfranchi, 2018; Hofstede, 2001; Nisbett et al., 2001). The findings also corroborate prior studies that indicated that members of an individualistic culture (e.g., the Dutch culture), where the emphasis is on the independent self and the focus on responsibility for one's faults and harmful effects on others will lead people to feel guilty about their behavior, will express and perceive more GUILT than SHAME after a moral transgression (Lewis, 2000; Miceli & Castelfranchi, 2018; Hofstede, 2001; Nisbett et al., 2001). Additionally, the results confirm conclusions of Matsumoto (1990), as well as Elfenbein and Ambady (2003b), that in-group combinations (author and readers of the same nationality) show higher interrater agreement than out-group combinations (author and readers differ in nationality), as explained by the concept of in-group advantage: we seem to understand emotions more accurately when they are expressed by members of our own culture. Taken together, these results suggest that the expression and perception of SHAME and GUILT in a text about a moral transgression are, at least to some extent, culture-specific.

SHAME and GUILT results in contrast with hypotheses. This study also provided new insights into the expression and perception of SHAME and GUILT that were unexpected. For example, the data suggested that Dutch authors were more likely to annotate words and sentences as SHAME than Spanish authors, rejecting hypothesis 2a and suggesting an effect in the opposite direction. Spanish authors did not annotate more words and sentences as SHAME when analyzing their text about a moral transgression, but Dutch authors did seem to notice more SHAME in their texts. Another unexpected finding was that interrater agreement on the number of words and sentences indicating SHAME was higher when the author and readers were of a different nationality. Annotations of a Spanish author and Dutch readers coincided better than

annotations of a Spanish author and Spanish readers, (partly) rejecting hypothesis 2e. Furthermore, interrater agreement on the number of words and sentences indicating SHAME and GUILT was higher between a Dutch author and Spanish readers than between a Dutch author and Dutch readers, rejecting hypothesis 2f. Thus, these results suggest that the expression and perception of SHAME and GUILT in a text about a moral transgression are, at least to some extent, culture-specific. However, the directions in which these results are significant differ from those that were expected. They are also in contrast with prior studies such as the one by Hautasaari et al. (2014), who concluded that non-native speakers are less likely to accurately interpret text messages than native speakers.

An explanation for these surprising results might be that, although not assumed when developing the hypotheses, people might have unconsciously taken into account the culture belonging to a language in which a text is written, and annotated that text in light of those cultural values. Therefore, agreement on annotations between authors and readers of different nationalities might have been higher than expected. It might be the case that, when reading a text in a foreign language, readers unconsciously discount the reliance on their own cultural values but consider those of the culture to which the foreign language pertains to gain a better understanding of the text. Evaluations of emotions are then made by thinking of how the author of the text would feel in the described situation as would be perceived the common or natural way for an author of that culture. In a way, reading in another language explicitly focuses attention on how feelings are verbalized and should be interpreted in accordance to this nonnative language. El Alaoui, Pilotti, Mulhem, Tallouzi, and Al Mqbas (2017) referred to this phenomenon as frame switching: "the ability of bilingual individuals to shift between interiorized cultural frames in response to environmental cues and demands." The assumption underlying frame switching is that different cultures coexist in the bilingual mind as separate mental frames, and they become accessible when a particular language used in a situation demands reliance on cultural values associated with that language. Luna, Ringberg, and Peracchio (2008) posited that, since frame switching is a largely automatic process, the Implicit Association Test (IAT) can be used to identify the relative activation strength of specific mental frames in different languages. This test requires participants to classify words into two possible groups: self-sufficient (relating to an individualistic culture) and other-dependent (relating to a

collectivistic culture). To investigate which cultural frame participants use when evaluating the emotions in texts, they can be asked to assign Dutch and Spanish words to one of these groups. For example, self-sufficient items are 'assertive', 'dominant', 'strong', 'independent', and 'defends own beliefs', while other-dependent items are 'tender', 'compassionate', 'warm', 'understanding', and 'affectionate'.

Connected with differences in cultural frames, the in-group advantage in emotion recognition is found to be greater the more cultural distance there is between the expresser and perceiver cultural groups. When there has been a substantial amount of exposure to the out-group culture, this leads to a higher cultural familiarity, and in turn, greater accuracy in judging expressions of the out-group. Thus, the in-group advantage will be smaller for groups with greater cross-cultural exposure (Elfenbein, 2003b). It might have been the case that the cultural distance between the Dutch and Spanish culture was not high enough. Therefore, display and decoding rules might have been more congruent than expected, leading to higher emotion recognition accuracy. This is also reflected in the fact that although interrater agreement measures were higher for out-group as compared to in-group combinations, the absolute differences were not substantial. Thus, readers with the same nationality as the author of the text still have the advantage of the fact that the author belongs to the same in-group. Based on cultural familiarity and activation, one would then expect no differences in emotion recognition between in- and out-group combinations. The reason why interrater agreement in this study was found to be even higher between a native author and non-native readers than between a native author and native readers might result from the way someone reads a text. Non-natives read a text more carefully, take more time to do so, and might even read certain sentences again to fully grasp everything. By doing so, they might be able to pick up more subtle emotional cues than natives do. This is because natives need to spend less cognitive effort to understand the text, are thus faster in reading it, and are less likely to read certain sentences again. Therefore, they may miss important emotional cues.

Moreover, another reason why only subtle differences were found in interrater agreement measures might be that Dutch and Spanish participants did not identify themselves as much with the individualistic or collectivistic values belonging to their cultures, potentially due to the

exposure to a language belonging to another culture than their own. This factor could be tested using a self-report scale on individualism versus collectivism. An example of such a scale is the one by Singelis, Triandis, Bhawuk, and Gelfand (1995), which consists of 32 questions that measure horizontal and vertical dimensions of individualism and collectivism. Horizontal dimensions include seeing the self as part of a collective with equal members (collectivism) and seeing the self as an autonomous individual with equality of members (individualism). Vertical dimensions include seeing the self as part of a collective with inequal members (collectivism) and seeing the self as an autonomous individual with acceptance of inequality between members (individualism). Before testing expectations about which cultures are more prone to express and perceive SHAME and GUILT, letting participants answer questions on this scale enables to verify if Dutch people are indeed more individualistic and Spanish people are indeed more collectivistic.

Another important aspect to take into account when interpreting the results are the consequences of topic choice for a text on annotations made in that text. The only instruction for the writing task was to write about a situation in which the author did something wrong and in which others were involved. Participants chose varying topics to write about, which differed in severity of potential consequences. For instance, some wrote about forgetting parts in a presentation given at school, while others wrote about causing a car accident. Annotations of texts depend on the situations described. The first example might lead to more SHAME, whereas the latter might lead to more GUILT. Indeed, different types of events elicit different types of emotions (Tangney, 1992; Tangney et al., 2007). Furthermore, the way of writing about a certain topic influences annotation. Emotionally laden texts are more likely to evoke emotional annotations than a rational analysis of responsibility. Connected to topic choice, different routes to perspective taking might have led to differences in annotation. A study by Isrealashvili, Sauter, and Fischer (2020) showed that deliberate perspective taking (focusing explicitly on the other) did not yield a consistent effect on emotion recognition accuracy, but spontaneously felt similarity (having had a similar experience) had an inverse relation to recognition of negative emotions. Perceivers who have had a similar negative experience to the emotional event described in a text feel greater personal distress, which partly explains their reduced accuracy in recognizing emotions of the author. Studies have shown that certain events elicit more SHAME

and GUILT (Tangney, 1992; Tangney et al., 2007; Tracy & Robins, 2004). It can be argued that people of different nationalities have had more experience with certain topics or situations, and they would therefore more frequently perceive feelings connected to those topics.

For the Spanish texts, several values for interrater agreement measures were lower than for the Dutch texts. One reason for this might be the way in which many Spanish texts were written. Participants in part II of the study indicated that the Spanish texts missed proper punctuation, such as capital letters at the start of a sentence, full stops, commas, colons, and accents. Moreover, mistakes were made in spelling and grammar. Punctuation plays an important role in understanding a text. Consequently, the writing style of the Spanish texts might have led to uncertainties and less understanding, especially for non-native readers who have a rather low level of the non-native language. Indeed, participants remarked that evaluating the emotions in the texts was difficult, and one person even noted: "The more errors, the more negative I judge the (author of) the text". Several studies confirmed this statement, and showed that the presence of spelling errors causes readers to form negative perceptions of an author's intelligence and writing abilities (Figueredo & Varnhagen, 2005; Kreiner, Schnakernberg, Green, Costello, & McClin, 2002; Schloneger, 2016). However, it was deliberately chosen not to correct the texts, as they are investigation material. Still, in further research it might be necessary to clearly state in the instructions for a writing task to use proper punctuation, as texts will be read later by others. Considering that the Spanish texts were harder to comprehend, perhaps cultural values were not that much a prominent influence while annotating, but the difference between self- and other annotation was emphasized more.

Indeed, the difference in self-perception versus other-perception becomes clear from the fact that the manipulation worked well, since all but three out of 60 writers identified SHAME or GUILT as the main emotion category in the text, but many readers did not agree with the writers that SHAME or GUILT were most present in the text. Conceivably, it is not so much a question of cultural differences but rather a disparity in self- other agreement. The fact that you as an author feel a certain emotion does not imply that you can also express this emotion in a text such that a reader can easily understand how you feel. The tendency for people to overestimate the extent to which others can detect their internal states is called the "illusion of transparency"

(Gilovich, Savitsky, & Medvec, 1998). Moreover, misalignment of author and reader perception can, next to less than optimal capabilities of authors in transferring emotions, be caused by misunderstanding of authors' intentions by readers. This is especially likely in complex information transmissions such as emotion exchanges, which may at times be ambiguous and have multiple meanings.

Lastly, the abovementioned interpretations of the results leave unexplained why significant differences between nationalities were found on some measures of SHAME and GUILT, but not on all. For example, several of the significant results were found on the number of words and sentences indicating SHAME or GUILT. It might well be that some measures were less well suited in the current form for measuring SHAME and GUILT than others. Therefore, further research is needed, possibly with the use of modifications of established and previously validated scales. This will be discussed further in the Limitations section.

**Results of empathy towards authors.** Interestingly, expectations that empathy towards authors would be lower if authors are perceived as feeling *ashamed* (hypothesis 4a) were not supported by the data. On the contrary, if people *strongly agreed* that the author felt *ashamed*, they showed more empathy than if they *strongly disagreed* that the author felt *ashamed*. Thus, people who committed a moral transgression and were perceived by others to feel *ashamed* about this received more empathy from others than expected.

These results may be explained by the different perspective taking forms people can engage in. Research has distinguished two ways in which people might take perspective (Batson, 2008; Davis et al., 2004). The first one is imagining how the other person is feeling. This other-focused approach is called an imagine-other perspective. The second way of taking perspective is imagining how you would feel yourself in the situation of the other person. This self-focused approach is called an imagine-self perspective. Research has shown that both forms of perspective taking elicit feelings of empathic concern and distress, but the type of distress elicited is different. An imagine-other perspective mainly causes people to feel distress for the other person, whereas an imagine self-perspective mainly causes people to personally experience distress (Batson, Early, & Salvarini, 1997; Batson, 2008). Perspective taking using an imagine self-perspective thus fits conceptually better with feelings of SHAME, because, as mentioned

previously, SHAME is positively correlated with narcissistic concerns and an egocentric focus on one's own distress (Tangney et al., 2007; Yang et al., 2010). This inherent egocentric focus on the "bad self" hinders the development of empathic feelings, leading to less capacity to focus cognitive and emotional resources on the harmed other. Therefore, if a reader strongly agrees that an author feels *ashamed*, this reader will show more empathy towards that author, as he or she recognizes and wants to reduce the personal distress - uncertainties about others' evaluations and reputational concerns - caused by feeling *ashamed*. Thus, these results suggest that the perception of empathy in a text about a moral transgression might not be universal, but perhaps the way people take perspective and how this influences empathy may be said to be similar for people of different cultures.

Nonetheless, similar reasonings based on the perspective taking account are not in line with the absence of a significant effect of level of perceived GUILT by the author on empathy towards the author, rejecting hypothesis 4b. Following the perspective taking theory, using an imagine other-perspective should fit with feelings of GUILT, because, as mentioned previously, GUILT is positively correlated with empathetic concern for others (Tangney et al, 2007; Yang et al., 2010). The focus on the "bad behavior" accentuates the development of empathic feelings, thereby fostering an empathic response towards the harmed other and the motivation to right the wrong. Therefore, if a reader strongly agrees that an author feels *guilty*, this reader will show more empathy towards that author, as he or she recognizes the concerns of the author about the effects of their behavior on people involved in the moral transgression, and wants to reduce the distress for the moral transgressor (Batson, 2008). Future research is needed to test the effects of a moral transgressor being perceived as feeling *ashamed* or *guilty* on the empathy readers will feel for this transgressor, potentially moderated or mediated by type of perspective taking the reader engages in.

#### **Theoretical and Practical Implications**

The main theoretical contribution of this study is adding empirical evidence to the fundamental question of universality versus cultural specificity of emotions. By contrasting emotion annotations of authors with annotations of native and non-native readers, valuable new insights are provided as to how humans understand each other in written communication. To

increase ecological validity, as compared with previous studies, the occurrence of emotion was studied in written texts that are used to communicate a certain story including emotional content. This reduces the gap in the literature due to much prior research studying only emotion terms without their context in communication. As outlined in the Introduction, past research has revealed mixed results with regards to the expression and perception of emotions. Moreover, earlier work has focused mainly on basic emotions and has not considered social emotions such as SHAME and GUILT. Likewise, little attention has been devoted to differences in the expression and perception of emotions cross-culturally, since most studies only include English as the target language. The results of this study specifically contribute a clearer understanding of how individualistic and collectivistic cultures, as represented by the Dutch and Spanish cultures respectively, differ in articulating and interpreting SHAME and GUILT. In addition, next to using words and sentences as emotional cues as is done in previous research, this study tested additional cues, namely main emotion represented in a text and intensity of the emotional experience of SHAME and GUILT. For several measures indeed we found that Spanish people are more likely to express and perceive SHAME after a moral transgression, while Dutch people express and perceive more GUILT. Nevertheless, effects in other directions were found as well, such as Dutch authors being more likely to annotate words and sentences as SHAME than GUILT, and interrater agreement on the number of words and sentences indicating SHAME and GUILT being higher when the author and readers are of a different nationality.

Practical implications of the study relate to having more knowledge about and being aware of cultural differences in emotions, which improves the communication process. This is relevant for everyday conversations between individuals of different cultures, but it has certainly broader implications. In fact, the study results are useful for all socio-emotional communication using text-only mediums between native and non-native Dutch and Spanish speaking authors and readers. Text-only mediums (such as email, instant messaging, and intranet contents) are more prone to cause misunderstandings in emotion expression and detection than voice or face-to-face based communication, even more so when this communication is between native and non-native speakers. Strategies in working with text-only mediums can, when applied too loosely, potentially have detrimental effects in interpersonal and work relationships. Of course, the results are particularly applicable when SHAME and GUILT play a role in the communication process.

For example, in work-related conversations and information exchanges where colleagues and managers need to understand each other, knowing how people convey their messages and how you should interpret them fosters effective communication, specifically in the international work environment in which many employees work commonly nowadays. Customer service employees handling international clients can benefit from knowing cultural differences and adjust the way they express to feel *guilty* for something that went wrong. Another example where awareness of cultural differences is beneficial is in mental health services. Psychologists and psychopathologists can better understand mental problems of clients, as for example clinical research has shown that SHAME and GUILT are often involved in suicide ideations and post-traumatic stress disorder in military personnel (Crowder & Kemmelmeier, 2018; Cunningham, 2020). Likewise, testimonies of witnesses and suspects after some crime has been committed probably include statements of feeling *guilty*, and maybe also of feeling *ashamed*. In sum, from a societal perspective, understanding better how to express and perceive emotion in text enhances the meaningfulness and effectiveness of communication.

# **Limitations and Suggestions for Future Research**

Although this study was designed carefully, the findings have to be seen in light of some limitations. The primary limitation of the data analysis procedure is the problem of multiple testing, viz. the possibility of making a type I error. Many tests were conducted using the same samples of data, but the decision was made to not adjust *p* values. One practical issue with correction for multiple comparisons is which statistical tests are included in the familywise error rate. Moreover, the most widely used correction for multiple testing, the Bonferroni correction, is considered to be overly conservative and can potentially mask important findings (Wright, 1992). Nonetheless, replication with a carefully chosen correction method is encouraged. Future research can control the increase in familywise error rate across statistical analyses using alternatives to the Bonferroni method, such as the Holm, Hochberg, or Hommel approaches (Wright, 1992).

Another methodological issue, which is related to the problem of multiple testing, is that the findings might not be generalizable to other nationalities or contexts. This is due to the design using non-unique raters. Annotators were randomly assigned to read texts, and all texts had

different raters. Therefore, interrater agreement measures were chosen that fitted this non-uniqueness. However, the outcomes on these measures might not be generalizable to other samples. Future research can overcome this problem by using unique raters, i.e., all/the same raters read and annotate all texts. Then it is possible to use only one interrater agreement measure for testing all hypotheses, which facilitates comparison of scores. A good example of such a measure is Krippendorff's alpha, which has the great advantage of usability with data at all levels of measurement (Hayes & Krippendorff, 2007).

What might also be considered as a limitation associated with this investigation is that no established and previously validated scales were used to measure the constructs of SHAME and GUILT, such as the Differential Emotions Scale (DES-IV) by Izard (1982) or the Test of Self-Conscious Affect (TOSCA) by Tangney, Wagner, and Gramzow (1989). However, this decision was made as those scales would not provide the information necessary to answer the hypotheses in this study. Existing scales are general in nature and measure dispositional tendencies or proneness to feeling SHAME and GUILT. Contrarily, this study focuses on how people express and perceive SHAME and GUILT in actual situations, so the interest is in levels of experience of the emotions when reading specific texts. Of course, all self-report measures of emotion have limitations, because they require participants to be aware of their emotions, discriminate among emotions (SHAME or GUILT), and be willing to disclose their true feelings. Nevertheless, to increase internal validity, future research could use modified scales and questions that are established, combined with measures for actual situations or specific cases. For example, the general tendency to feel ashamed could be measured and how ashamed someone felt after the experience described in a text about a moral transgression. Then internal, dispositional factors are combined with transient, situational factors and it can be measured how this differs per nationality/culture. It can be tested whether stable dispositions or transient states are more subject to cultural influences.

Further research is also needed to establish to what extent the current results generalize to experiences shared and perceived by men. The gender distribution in this study was not balanced, as more writers and readers were female than male. Some studies show that females are better in expressing and detecting certain emotions (McBain, Norton, & Chen, 2009; Williams et al.,

2009), while other studies contradict this conclusion (Derntl et al., 2009). Although effects due to gender are expected to be less pronounced than effects due to culture, further research with an equal number of participants from both sexes should clarify this.

Interesting research questions for future research can also be based on cultural differences in the verbalization and interpretation of other emotions, and maybe even investigate how frequently they concur with SHAME and GUILT. For example, research by Markus and Kitayama (1991) revealed that individualistic cultures have more "self-focused" emotions such as PRIDE and ANGER, whereas collectivistic cultures have more "other-focused" emotions such as SHAME and GUILT. Noteworthy, this contradicts the distinction made in this study that SHAME is a more self-focused emotion, while GUILT is a more other-focused emotion. Research has also found that proneness to SHAME is positively correlated with ANGER, hostility and blaming factors beyond the self for one's own negative experiences. GUILT, on the other hand, facilitates empathic processes, thus reducing outward directed aggression (Tangney et al., 2007). Furthermore, participants remarked that while annotating, they missed several emotion categories such as SADNESS, FRUSTRATION, DECEPTION, and DESPAIR. The fact that they missed those emotion categories in texts that mainly conveyed SHAME and GUILT might be an indication that those emotions also frequently co-occur with SHAME and GUILT.

#### Conclusion

As this paper demonstrates, finding the answer to the question: 'To what extent are the expression and perception of the emotions SHAME and GUILT in text universal or culturespecific?' is not simple. Hypotheses testing based on different operationalizations of SHAME and GUILT yielded some significant results in line with predictions, mostly for the expression and perception of GUILT. Unexpectedly, several significant results were also found in contrast with expectations, mostly for the expression and perception of SHAME. A cautionary conclusion is that the expression and perception of SHAME and GUILT in a text about a moral transgression is culture-specific to a certain extent. Factors that determine the emotion exchange process are the extent to which people identify themselves with individualism or collectivism and use cultural values associated with it during annotation, topic of the described situation, writing style of the author, and differences between self- and other- annotation. This study also tested how much empathy readers have for authors after reading their written emotion expressions, which was expected to be a more universal concept. There was a significant effect of level of perceived SHAME felt by the author on empathy towards the author. If people strongly agreed that the author felt ashamed, they showed more empathy than if they strongly disagreed that the author felt ashamed. There was no significant effect of level of perceived GUILT felt by the author on empathy towards the author. Type of perspective taking as an explanation for how much empathy is felt was discussed.

Comparing the expression and perception of SHAME and GUILT across cultures provided an insight into how differences in cultural values affect the emotion process. Individualism versus collectivism can be used as a predictor of expression and perception of emotion. Accurately interpreting the emotional content of a message consistent with that intended by the sender is not easy for a receiver. However, if successfully executed, it will improve communications, not only in everyday interpersonal conversations, but also in much broader, professional settings. As mentioned at the start of this paper, human interaction revolves around communication and language plays a pivotal role in how successful that communication is. Importantly, as this research has shown, how well we can express our own affective states and perceive those of others depends, at least to a certain extent, on the cultural values associated with one's and others' nationality and the languages belonging to them used for the transmission of emotional information.

#### References

- Batson, C. D. (2008). Two forms of perspective taking: Imagining how another feels and imagining how you would feel. In K. D. Markman, W. M. P. Klein, J. A. Suhr (Eds.), *Handbook of imagination and mental stimulation* (pp. 267-279). New York: Psychology Press.
- Batson, C. D., Early, S., Salvarini, G. (1997). Perspective taking: imagining how another feels versus imagining how you would feel. *Personality and Social Psychology Bulletin*, 23(7), 751-758.
- Brislin, R. W. (1980). Translation and content analysis of oral and written material. In H. C. Triandis, & J. W. Berry (Eds.), Handbook of cross-cultural psychology (Vol. 1) (pp. 389–444). Boston: Allyn & Bacon.
- Crivelli, C., Jarillo, S., Russell, J. A., & Fernández-Dols, J. M. (2016). Reading emotions from faces in two indigenous societies. *Journal of Experimental Psychology: General*, 145(7), 830-843.
- Crowder, M. K., & Kemmelmeier, M. (2018). Cultural Differences in Shame and Guilt as Understandable Reasons for Suicide. *Psychological Reports*, *121*(3), 396–429.
- Cunningham, K.C. (2020). Chapter 6 Shame and guilt in PTSD. In M.T Tull, & N. A. Kimbrel, *Emotion in Posttraumatic Stress Disorder*, (pp. 145-171). Academic Press.
- Darwin, C. R. (1872). *The expression of the emotions in man and animals*. London: John Murray. 1<sup>st</sup> edition.
- Davis, M. H., Soderlund, T., Cole, J., Gadol, E., Kute, M., Myers, M., Weihing, J. (2004). Cognitions associated with attempts to empathize: How do we imagine the perspective of another? *Personality and Social Psychology Bulletin*, *30*(12), 1625-1635.

- Derntl, B., Habel, U., Windischberger, C., Robinson, S., Kryspin-Exner, I., Gur, R.C., & Moser, E. (2009). General and specific responsiveness of the amygdala during explicit emotion recognition in females and males. *BMC Neuroscience*, 10(91).
- Ekman, P. (1992). Are there basic emotions? Psychological Review, 99(3), 550-553.
- Ekman, P., & Friesen, W. (1969). The repertoire of nonverbal behavior: Categories, origins, usage, and coding. *Semiotica*, *1*, 49-98.
- El Alaoui, K., Pilotti, M. A. E., Mulhem, H., Tallouzi, E. A., & Al Mqbas, M. M. A. (2017). The role of language and cultural orientation in guilt and shame experienced by bilingual female speakers. *Journal of Muslim Mental Health*, *11*(2), 17-45.
- Elfenbein, H. A., & Ambady, N. (2002). On the universality and cultural specificity of emotion recognition: a meta-analysis. *Psychological bulletin*, *128*(2), 203-235.
- Elfenbein, H. A., & Ambady, N. (2003a). Universals and cultural differences in recognizing emotions. *Current directions in psychological science*, *12*(5), 159-164.
- Elfenbein, H. A., & Ambady, N. (2003b). When familiarity breeds accuracy: cultural exposure and facial emotion recognition. *Journal of personality and social psychology*, 85(2), 276-290.
- Figueredo, L., & Varnhagen, C.K. (2005). Didn't you run the spell checker? Effects of type of spelling error and use of a spell checker on perceptions of the author. *Reading Psychology*, 26(4-5), 441-458.
- Fleiss, J. L., Levin, B., & Paik, M. C. (2003). The Measurement of Interrater Agreement. In J.L. Fleiss, Levin, B., & M. C. Paik, *Statistical Methods for Rates and Proportions (3rd ed., Ser. Wiley series in probability and statistics)* (pp. 598-626). John Wiley; Sons, Inc.

- Fontaine, J. R., Scherer, K. R., & Soriano, C. (Eds.). (2013). *Components of emotional meaning: A sourcebook*. Oxford University Press.
- Gendron, M., Crivelli, C., & Barrett, L. F. (2018). Universality reconsidered: Diversity in making meaning of facial expressions. *Current Directions in Psychological Science*, 27(4), 211-219.
- Gilovich, T., Savitsky, K., & Medvec, V. H. (1998). The illusion of transparency: Biased assessments of others' ability to read one's emotional states. *Journal of personality and social psychology*, 75(2), 332-346.
- Gudykunst, W. B., & Ting-Toomey, S. (1988). Culture and interpersonal communication. Newbury Park, CA: Sage.
- Hautasaari, A. M., Yamashita, N., & Gao, G. (2014). *Maybe it was a joke: emotion detection in text-only communication by non-native english speakers*. Paper presented at the Proceedings of the SIGCHI Conference on Human Factors in Computing Systems.
- Hayes, A. F., & Krippendorff, K. (2007). Answering the call for a standard reliability measure for coding data. *Communication Methods and Measures*, *1*, 77-89.
- Hofstede, G. (2001). Culture's consequences: Comparing values, behaviors, institutions, and organizations across nations. Thousand Oaks, CA: Sage Publications.
- Horn, R. A. (n.d.). EPS 625 INTERMEDIATE STATISTICS ONE-WAY ANOVA IN-CLASS EXAMPLE ADJUSTING FOR HETEROGENEITY OF VARIANCE (Northern Arizona University). Retrieved from http://oak.ucc.nau.edu/rh232/courses/EPS625/Handouts/One-Way%20ANOVA/ANOVA%20-%20Example%20-%20Welch%20and%20G-H%20-%20Key.pdf
- Israelashvili, J., Sauter, D.A., & Fischer, A.H. (2020). Different faces of empathy: Feelings of

- similarity disrupt recognition of negative emotions. *Journal of Experimental Social Psychology*, 87, 1-14.
- Izard, C. E. (1971). The face of emotion. New York, NY: AppletonCentury-Crofts.
- Izard, C. E. (1982). *Measuring Emotions in Infants and Children*. Cambridge: Press Syndicate of University of Cambridge.
- Jack, R. E., Caldara, R., & Schyns, P. G. (2012). Internal representations reveal cultural diversity in expectations of facial expressions of emotion. *Journal of Experimental Psychology: General*, 141(1), 19–25.
- Jackson, J.C., Watts, J., Henry, T.R., List, J-M., Forkel, R., Mucha, P.J., Greenhill, S.J., Gray, R.D., & Lindquist, K.A. (2019). Emotion semantics show both cultural variation and universal structure. *Science*, 366(6472), 1517-1522.
- Kato, Y., Kato, S., & Akahori, K. (2007). Effects of emotional cues transmitted in e-mail communication on the emotions experienced by senders and receivers. *Computers in Human Behavior*, 23(4), 1894-1905.
- Kreiner, D.S., Schnakernberg, S.D., Green, A.G., Costello, M.J., & McClin, A.F. (2002). Effects of Spelling Errors on the Perception of Writers. *The Journal of General Psychology*, 129(1), 5-17.
- Kruger, J., Epley, N., Parker, J., & Ng, Z. (2005). Egocentrism over e-mail: Can we communicate as well as we think? *Journal of Personality and Social Psychology*, 89(6), 925–936.
- Landis, J.R., & Koch, G.G. (1977). The measurement of observer agreement for categorical data. *Biometrics*, 33(1), 159-174.

- Lewis, M. (2000). Self-conscious emotions: Embarrassment, pride, shame, and guilt. In M. Lewis & J. M. Haviland-Jones (Eds.), Handbook of emotions (2nd ed., pp. 623-636). New York: Guilford.
- Luna, D., Ringberg, T., & Peracchio, L. A. (2008). One individual, two identities: frame switching among biculturals. *Journal of Consumer Research*, *35*(2), 279–293.
- Markus, H. R., & Kitayama, S. (1991). Culture and the self: Implications for cognition, emotion, and motivation. *Psychological Review*, *98*(2), 224–253.
- McBain, R., Norton, D., Chen, Y. (2009). Females excel at basic face perception, *Acta Psychologica*, *130*(2), 168-173.
- Matsumoto, D. (1990). Cultural similarities and differences in display rules. *Motivation and Emotion*, *14*, 195-214.
- Mesquita, B., & Frijda, N. H. (1992). Cultural variations in emotions: A review. *Psychological Bulletin*, 112(2), 197-204.
- Miceli, M., & Castelfranchi, C. (2018). Reconsidering the Differences Between Shame and Guilt. *Europe's Journal of Psychology, 14*(3), 710-733.
- Nisbett R.E., Peng, K. Choi, I. & Norenzayan, A. (2001). Culture and systems of thought: holistic versus analytic cognition. *Psychological Review*, *108*(2), 291-310.
- Ogarkova, A., Soriano Salinas, C., & Lehr, C. (2012). Naming Feeling: Exploring the equivalence of emotions terms in five European languages. In: P. Wilson. *Dynamicity in Emotion Concepts*.
- Riordan, M.A., & Trichtinger, L.A. (2017). Overconfidence at the Keyboard: Confidence and Accuracy in Interpreting Affect in E-Mail Exchanges. *Human Communication Research*,

- Romney, A.K., Moore, C.C., & Rusch, C.D. (1997). Cultural universals: Measuring the semantic structure of emotion terms in English and Japanese. *Proc. Natl. Aca. Sci.*, *94*(10), 5489-5494.
- Roseman, I. J., & Smith, C. A. (2001). Appraisal theory. *Appraisal processes in emotion: Theory, methods, research*, 3-19. New York: Oxford University Press.
- Russell, J. A. (1994). Is there universal recognition of emotion from facial expression? A review of the cross-cultural studies. *Psychological Bulletin*, *115*(1), 102–141.
- Schloneger, R.M. (2016). Is This Author Intelligent? The Effect of Spelling Errors on Perception of Authors. *Linguistics Senior Research Projects*, 1-29.
- Shrout, P., & Fleiss, J. (1979). Intraclass correlations: Uses in assessing rater reliability. *Psychological Bulletin*, 86(2), 420-428.
- Siegel, S., & Castellen, N.J. Jr. (1988). *Nonparametic Statistics for the Behavioral Sciences. 2nd ed.* New York, NY: McGraw-Hill Book Co.
- Singelis T. M., Triandis H. C., Bhawuk D. P. S. & Gelfand M. J. (1995). Horizontal and vertical dimensions of individualism and collectivism: A theoretical and measurement refinement. *Cross-Cultural Research*, 29(3), 240-275.
- Stearns, D.C., & Parrott, W.G. (2012). When feeling bad makes you look good: Guilt, shame, and person perception. *Cognition and Emotion*, 26(3), 407-430.
- Tangney, J. P. (1992). Situational determinants of shame and guilt in young adulthood. *Personality & Social Psychology Bulletin*, *18*(2), 199–206.

- Tangney, J.P., Stuewig, J., & Mashek, D.J. (2007) Moral Emotions and Moral Behavior. *Annual review of Psychology*, 58(1), 345-372.
- Tangney, J.P., Wagner, P., & Gramzow, R. (1989). *The test of self-conscious affect*. Fairfax: George Mason University.
- Tracy, J.L., & Robins, R.W. (2004). Putting the Self Into Self-Conscious Emotions: A Theoretical Model. *Psychological Inquiry*, *15*(2), 103-125.
- Volynets, S., Glerean, E., Hietanen, J.K., Hari, R., & Nummenmaa, L. (2019). Bodily maps of emotions are culturally universal. *Emotion*.
- Williams, L.M., Mathersul, D., Palmer, D. M., Gur, R.C., Gur, R.E., & Gordon, E. (2009). Explicit and implicit recognition of facial emotions: 1. Age effects in males and females across 10 decades. *Journal of Clinical & Experimental Neuropsychology*, 31, 257-277.
- Wright, S.P. (1992). Adjusted P-Values for Simultaneous Inference. *Biometrics*, 48(4), 1005-1013.
- Yang, M-L., Yang, C-C., & Chiou, W-B. (2010). When guilt leads to other orientation and shame leads to egocentric self-focus: effects of differential priming of negative affects on perspective taking. *Social behavior and personality*, *38*(5), 605-614.
- Yates, D., Moore, D., & McCabe, G. (1999). The Practice of Statistics. New York: Freeman.
- Yuki, M., Maddux, W. W., & Masuda, T. (2007). Are the windows to the soul the same in the East and West? Cultural differences in using the eyes and mouth as cues to recognize emotions in Japan and the United States. *Journal of Experimental Social Psychology*, 43(2), 303–311.

### **Notes**

<sup>1</sup> Following conventions in the linguistic field, emotion categories are written in capitals (SHAME, GUILT), whereas emotion terms are written in italics (*ashamed, guilty*).

<sup>2</sup> Formulas for the overall kappa score and chi squared statistic were derived from Fleiss, Levin, and Paik (2003).

$$\hat{\kappa}_{\text{overall}} = \frac{\sum\limits_{m=1}^{g} \frac{\hat{\kappa}_{m}}{V_{m}(\hat{\kappa}_{m})}}{\sum\limits_{m=1}^{g} \frac{1}{V_{m}(\hat{\kappa}_{m})}}$$

$$\chi_{\text{equal }\kappa'\text{s}}^2 = \sum_{m=1}^g \frac{\left(\hat{\kappa}_m - \hat{\kappa}_{\text{overall}}\right)^2}{V_m(\hat{\kappa}_m)}$$

<sup>3</sup> The formula for the adjusted omega squared was derived from Horn (n.d.).

$$est. \,\omega^2 = \frac{df_{bet}(F-1)}{df_{bet}(F-1) + N_T}$$

# **Appendices**

#### A. Recruitment Texts

# Part I of the study

# **Dutch participants**

Hallo allemaal,

Voor mijn masterscriptie doe ik onderzoek naar het communiceren van emoties via tekst en in hoeverre auteurs en lezers dezelfde emoties uit een tekst halen op basis van de manier waarop de tekst geschreven is.

Iedereen die Nederlands als moedertaal heeft kan meedoen. De vragenlijst duurt ongeveer 20 minuten.

Je zou mij heel erg helpen door mee te doen. Je mag deze vragenlijst ook delen met vrienden en familie ;)

Via deze link kom je bij de vragenlijst:

https://tilburghumanities.eu.qualtrics.com/jfe/form/SV\_eCluyYn4GHpkhU1

Als je vragen hebt, neem dan gerust contact met mij op via een DM of [email]

#### **English translation of Dutch recruitment text**

Hello everyone,

For my master's thesis, I research the communication of emotions via text and the extent to which authors and readers extract the same emotions from a text based on the way the text is written.

Anyone who has Dutch as their mother tongue can participate. The questionnaire takes about 20 minutes.

You would help me a lot by participating. You can also share this questionnaire with friends and family;)

This link will take you to the questionnaire:

https://tilburghumanities.eu.qualtrics.com/jfe/form/SV\_eCluyYn4GHpkhU1

# **Spanish participants**

Hola a todos,

Para mi tesis investigo la comunicación de las emociones a través del texto y hasta qué punto los autores y lectores extraen las mismas emociones de un texto basado en la forma en que está escrito.

Cualquier persona que tenga el español como lengua materna puede participar. El cuestionario dura unos 20 minutos.

Me ayudarías mucho participando. También puedes compartir este cuestionario con amigos y familiares ;)

A través de este enlace llegarás al cuestionario:

https://tilburghumanities.eu.qualtrics.com/jfe/form/SV\_bE4I1rsf8J7TV5P

Si tienes alguna pregunta, no dudes en ponerse en contacto conmigo a través de un DM o [email]

### **English translation of Spanish recruitment text**

Hello everyone,

For my master's thesis, I research the communication of emotions via text and the extent to which authors and readers extract the same emotions from a text based on the way the text is written.

Anyone who has Spanish as their mother tongue can participate. The questionnaire takes about 20 minutes.

You would help me a lot by participating. You can also share this questionnaire with friends and family;)

This link will take you to the questionnaire:

https://tilburghumanities.eu.qualtrics.com/jfe/form/SV\_eCluyYn4GHpkhU1

## Part II of the study

### **Dutch participants**

Hallo allemaal,

Voor mijn masterscriptie doe ik onderzoek naar het communiceren van emoties via tekst en in hoeverre auteurs en lezers dezelfde emoties uit een tekst halen op basis van de manier waarop de tekst geschreven is.

Iedereen die Nederlands als moedertaal heeft en Spaans spreekt (minimaal B1+ niveau) kan meedoen. Je gaat namelijk teksten lezen en interpreteren in zowel Nederlands als Spaans. De vragenlijst duurt ongeveer 30 minuten.

Je zou mij heel erg helpen door mee te doen. Je mag deze vragenlijst ook delen met vrienden en familie ;)

Via deze link kom je bij de vragenlijst:

https://tilburghumanities.eu.qualtrics.com/jfe/form/SV\_8p2qcugASTOgNk9

Als je vragen hebt, neem dan gerust contact met mij op via een DM of [email]

### **English translation of Dutch recruitment text**

Hello everyone,

For my master's thesis, I research the communication of emotions via text and the extent to which authors and readers extract the same emotions from a text based on the way the text is written.

Anyone who is native Dutch and speaks Spanish (at least B1 + level) can participate. You will read and interpret texts in both Dutch and Spanish. The questionnaire takes about 30 minutes.

You would help me a lot by participating. You can also share this questionnaire with friends and family;)

This link will take you to the questionnaire:

https://tilburghumanities.eu.qualtrics.com/jfe/form/SV\_8p2qcugASTOgNk9

# **Spanish participants**

Hola a todos,

Para mi tesis investigo la comunicación de las emociones a través del texto y hasta qué punto los autores y lectores extraen las mismas emociones de un texto basado en la forma en que está escrito.

Cualquier persona que tenga el español como lengua materna y que hable neerlandés (al menos nivel B1 +) puede participar, porque vas a leer e interpretar textos en español y neerlandés. El cuestionario dura unos 30 minutos.

Me ayudarías mucho participando. También puedes compartir este cuestionario con amigos y familiares ;)

A través de este enlace llegarás al cuestionario:

https://tilburghumanities.eu.qualtrics.com/jfe/form/SV\_0Nhynsf1p03Iepf

Si tienes alguna pregunta, no dudes en ponerse en contacto conmigo a través de un DM o [email]

### **English translation of Spanish recruitment text**

Hello everyone,

For my master's thesis, I research the communication of emotions via text and the extent to which authors and readers extract the same emotions from a text based on the way the text is written.

Anyone who is native Spanish and speaks Dutch (at least B1 + level) can participate. You will read and interpret texts in both Spanish and Dutch. The questionnaire takes about 30 minutes.

You would help me a lot by participating. You can also share this questionnaire with friends and family;)

This link will take you to the questionnaire:

https://tilburghumanities.eu.qualtrics.com/jfe/form/SV\_8p2qcugASTOgNk9

#### **B.** Information Letters

# Part I of the study

# **Dutch participants**

Titel: Productie en perceptie van emotionele gebeurtenissen.

Achtergrond en Inleiding: Het communiceren van emoties via tekst gaat niet altijd even makkelijk. De waargenomen emoties van lezers zijn niet altijd gelijk aan de emoties die auteurs willen uitdrukken.

Doel: Het doel van de studie is om te onderzoeken in hoeverre auteurs en lezers dezelfde emoties uit een tekst halen op basis van de manier waarop de tekst geschreven is.

Taak en duur: De taak voor de deelnemer is om over een persoonlijke ervaring te schrijven en vervolgens de emotionaliteit in de tekst aan te duiden. Er zal ook demografische informatie worden verzameld, namelijk leeftijd, geslacht en opleidingsniveau. Het onderzoek duurt ongeveer 20 minuten.

Voor- en nadelen van de deelname: Participanten kunnen door deelname bijdragen aan belangrijk wetenschappelijk onderzoek, wat hen het positieve gevoel geeft waardevol te zijn. Participanten wordt gevraagd om aan een persoonlijke gebeurtenis te denken en de gevoelens die daarbij horen te beschrijven. Dit kan een aanzienlijke emotionele belasting veroorzaken. Deelnemers kunnen er echter te allen tijde voor kiezen zich terug te trekken uit het onderzoek.

Dataverzameling en rechten van de deelnemers: De teksten die zullen worden opgesteld door de deelnemers worden gezien als gevoelige informatie. Er zal geen persoonlijke informatie worden gebruikt in de analyse. Alle gegevens worden zorgvuldig behandeld, alleen de onderzoeker en begeleiders hebben toegang tot de onbewerkte gegevens. Toestemming om de verstrekte gegevens te gebruiken geldt tot het einde van deze studie. Alle geanonimiseerde gegevens worden 10 jaar lang bewaard op Dataverse. De teksten die geschreven zullen worden zullen niet

herleidbaar zijn naar de auteur. Deelname aan deze studie is vrijwillig. Deelnemers kunnen zich op ieder moment uit de studie terugtrekken zonder negatieve gevolgen.

Hergebruik: De geschreven teksten zullen gebruikt worden voor een vervolgstudie.

Jouw deelname aan dit onderzoek wordt zeer op prijs gesteld en zal zeer waardevol zijn voor het onderzoek.

Contact: Als je vragen of opmerkingen hebt voor de onderzoeker, neem dan contact op met: Niki de Jonge ([email]). Deze studie is goedgekeurd door de TSHD Research Ethics and Data Management Committee. Voor eventuele opmerkingen of klachten over dit onderzoek kun je ook contact opnemen met de Research Ethics and Data Management Committee van Tilburg School of Humanities and Digital Sciences via [email].

## **Spanish participants**

Título: Producción y percepción de eventos emocionales.

Antecedentes e Introducción: Comunicar emociones a través un texto no siempre es fácil. Las emociones percibidas de los lectores no siempre son las mismas que las emociones que los autores quieren expresar.

Objetivo: El objetivo del estudio es investigar hasta qué punto los autores y lectores extraen las mismas emociones de un texto basado en la forma en que está escrito.

Tarea y duración: La tarea del participante es escribir sobre una experiencia personal y luego indicar las emociones en el texto. También se recopilará información demográfica, es decir, edad, género y nivel de educación. El examen dura unos 20 minutos.

Ventajas y desventajas de la participación: Los participantes pueden contribuir a investigaciones científicas importantes, lo que les da la sensación positiva de ser valiosos. Se les pide a los

participantes que piensen en un evento personal y describan los sentimientos que lo acompañan. Esto puede causar una carga emocional significativa. Sin embargo, los participantes pueden optar por retirarse del estudio en cualquier momento.

Recopilación de datos y derechos de los participantes: Los textos que serán preparados por los participantes se consideran información confidencial. No se utilizará información personal en el análisis. Todos los datos se tratan con cuidado, solo el investigador y los supervisores tienen acceso a los datos. El permiso para usar la información proporcionada es válido hasta el final de este estudio. Todos los datos anónimos se almacenan en Dataverse durante 10 años. Los textos que se escribirán no serán trazables al autor. La participación en este estudio es voluntaria. Los participantes pueden retirarse del estudio en cualquier momento sin consecuencias negativas.

Reutilización: Los textos escritos se utilizarán para un estudio de seguimiento. Tu participación en este estudio es muy apreciada y será muy valiosa para el estudio.

Contacto: Si tienes alguna pregunta o comentario para el investigador, contacta con: Niki de Jonge ([email]). Este estudio fue aprobado por el Comité de Ética de Investigación y Gestión de Datos de TSHD. Para cualquier comentario o queja sobre esta investigación, también puedes contactar con el Comité de Ética de Investigación y Gestión de Datos de la Escuela de Humanidades y Ciencias Digitales de Tilburg en [email].

#### **English translation of the information letter**

Title: Production and perception of emotional events.

Background and Introduction: Communicating emotions through text is not always easy. The perceived emotions of readers are not always the same as the emotions that authors want to express.

Aim: The aim of the study is to investigate the extent to which authors and readers extract the same emotions from a text based on the way the text is written.

Task and duration: The task for the participant is to write about a personal experience and then indicate the emotionality in the text. Demographic information will also be collected, namely age, gender and level of education. The examination takes about 20 minutes.

Advantages and disadvantages of participation: Participants can contribute to important scientific research, which gives them the positive feeling of being valuable. Participants are asked to think about a personal event and describe the feelings associated with it. This can cause a significant emotional burden. However, participants may choose to withdraw from the study at any time.

Data collection and rights of the participants: The texts that will be written by the participants are considered as sensitive information. No personal information will be used in the analysis. All data is treated carefully, only the researcher and supervisors have access to the raw data. Permission to use the information provided is valid until the end of this study. All anonymized data is stored on Dataverse for 10 years. The texts that will be written will not be traceable to the author. Participation in this study is voluntary. Participants can withdraw from the study at any time without negative consequences.

Reuse: The written texts will be used for a follow-up study.

Your participation in this study is highly appreciated and will be very valuable to the study.

Contact: If you have any questions or comments for the researcher, please contact: Niki de Jonge ([email]). This study has been approved by the TSHD Research Ethics and Data Management Committee. For any comments or complaints about this research, you can also contact the Research Ethics and Data Management Committee of Tilburg School of Humanities and Digital Sciences at [email].

Part II of the study

**Dutch participants** 

Titel: Perceptie van emotionele gebeurtenissen

Achtergrond en Inleiding: Het communiceren van emoties via tekst gaat niet altijd even makkelijk. De waargenomen emoties van lezers zijn niet altijd gelijk aan de emoties die auteurs willen uitdrukken.

Doel: Het doel van de studie is om te onderzoeken in hoeverre auteurs en lezers dezelfde emoties uit een tekst halen op basis van de manier waarop de tekst geschreven is.

Taak en duur: De taak voor de deelnemer is om over persoonlijke ervaringen van anderen te lezen en vervolgens de emotionaliteit in deze teksten aan te duiden. Er zal ook demografische informatie worden verzameld, namelijk leeftijd, geslacht en opleidingsniveau. Het onderzoek duurt ongeveer 30 minuten.

Voordeel van de deelname: Participanten kunnen door deelname bijdragen aan belangrijk wetenschappelijk onderzoek, wat hen het positieve gevoel geeft waardevol te zijn.

Dataverzameling en rechten van de deelnemers: Er zal geen persoonlijke informatie worden gebruikt in de analyse. Alle gegevens worden zorgvuldig behandeld, alleen de onderzoeker en begeleiders hebben toegang tot de onbewerkte gegevens. Toestemming om de verstrekte gegevens te gebruiken geldt tot het einde van deze studie. Alle geanonimiseerde gegevens worden 10 jaar lang bewaard op Dataverse. Toestemming om de verstrekte gegevens te gebruiken geldt tot het einde van deze studie. Alle geanonimiseerde gegevens worden 10 jaar lang bewaard op Dataverse. De evaluaties die gemaakt zullen worden zullen niet herleidbaar zijn naar de lezer. Deelname aan deze studie is vrijwillig. Deelnemers kunnen zich op ieder moment uit de studie terugtrekken zonder negatieve gevolgen.

66

Jouw deelname aan dit onderzoek wordt zeer op prijs gesteld en zal zeer waardevol zijn voor het onderzoek.

Contact: Als je vragen of opmerkingen hebt voor de onderzoeker, neem dan contact op met: Niki de Jonge ([email]). Deze studie is goedgekeurd door de TSHD Research Ethics and Data Management Committee. Voor eventuele opmerkingen of klachten over dit onderzoek kunt u ook contact opnemen met de Research Ethics and Data Management Committee van Tilburg School of Humanities and Digital Sciences via [email].

## **Spanish participants**

Título: Percepción de eventos emocionales.

Antecedentes e Introducción: Comunicar emociones a través un texto no siempre es fácil. Las emociones percibidas de los lectores no siempre son las mismas que las emociones que los autores quieren expresar.

Objetivo: El objetivo del estudio es investigar hasta qué punto los autores y lectores extraen las mismas emociones de un texto basado en la forma en que está escrito.

Tarea y duración: La tarea del participante es leer sobre las experiencias personales de otras personas y luego indicar las emociones en estos textos. También se recopilará información demográfica, es decir, edad, género y nivel de educación. El examen dura unos 30 minutos. Ventaja de la participación: Los participantes pueden contribuir a investigaciones científicas importantes, lo que les da la sensación positiva de ser valiosos.

Recopilación de datos y derechos de los participantes: No se utilizará información personal en el análisis. Todos los datos se tratan con cuidado, solo el investigador y los supervisores tienen acceso a los datos. El permiso para usar la información proporcionada es válido hasta el final de este estudio. Todos los datos anónimos se almacenan en Dataverse durante 10 años. Las evaluaciones que se realizarán no serán trazables al lector. La participación en este estudio es

voluntaria. Los participantes pueden retirarse del estudio en cualquier momento sin consecuencias negativas.

Tu participación en este estudio es muy apreciada y será muy valiosa para el estudio. Contacto: Si tienes alguna pregunta o comentario para el investigador, contacta con: Niki de Jonge ([email]). Este estudio fue aprobado por el Comité de Ética de Investigación y Gestión de Datos de TSHD. Para cualquier comentario o queja sobre esta investigación, también puedes contactar con el Comité de Ética de Investigación y Gestión de Datos de la Escuela de Humanidades y Ciencias Digitales de Tilburg en [email].

## English translation of the information letter

Title: Production and perception of emotional events.

Background and Introduction: Communicating emotions through text is not always easy. The perceived emotions of readers are not always the same as the emotions that authors want to express.

Aim: The aim of the study is to investigate the extent to which authors and readers extract the same emotions from a text based on the way the text is written.

Task and duration: The task for the participant is to read about the personal experiences of others and then to indicate the emotionality in these texts. Demographic information will also be collected, namely age, gender and level of education. The examination takes about 30 minutes.

Benefit of participation: Participants can contribute to important scientific research by participating, which gives them the positive feeling of being valuable.

Data collection and rights of participants: No personal information will be used in the analysis. All data is treated carefully, only the researcher and supervisors have access to the raw data. Permission to use the information provided is valid until the end of this study. All anonymized data is stored on Dataverse for 10 years. Permission to use the information provided is valid until the end of this study. All anonymized data is stored on Dataverse for 10 years. The evaluations

that will be made will not be traceable to the reader. Participation in this study is voluntary. Participants can withdraw from the study at any time without negative consequences.

Your participation in this study is highly appreciated and will be very valuable to the study.

Contact: If you have any questions or comments for the researcher, please contact: Niki de Jonge ([email]). This study has been approved by the TSHD Research Ethics and Data Management Committee. For any comments or complaints about this research, you can also contact the Research Ethics and Data Management Committee of Tilburg School of Humanities and Digital Sciences at [email].

#### **C.** Consent Forms

## Part I of the study

# **Dutch participants**

Ik heb de informatiebrief gelezen en begrijp het doel van de studie. Ik heb voldoende tijd gehad om over deelname na te denken. Ik begrijp dat ik te allen tijde kan stoppen met mijn deelname aan de studie als ik dit wil.

Ik geef toestemming om mijn gegevens te gebruiken voor de doelen die staan beschreven in de informatiebrief.

Ik geef toestemming om mijn onbewerkte gegevens 10 jaar lang te bewaren nadat de studie is afgelopen.

Ik geef toestemming om mijn geanonimiseerde gegevens te gebruiken in toekomstig onderzoek. Klik op 'Ga verder' als je toestemming geeft en door wilt gaan naar de vragenlijst.

## **Spanish participants**

He leído la carta de información y entiendo el propósito del estudio. He tenido tiempo suficiente para pensar en participar. Entiendo que puedo dejar de participar en el estudio en cualquier momento si lo deseo.

Doy permiso para usar mis datos para los fines descritos en la carta de información.

Doy permiso para mantener mis datos durante 10 años después de que finalice el estudio.

Doy permiso para que mis datos anónimos se utilicen en futuras investigaciones.

Haga clic en 'Continuar' si das tu consentimiento y deseas continuar con el cuestionario.

### English translation of the consent form

I have read the information letter and understand the purpose of the study. I have had enough time to think about participating. I understand that I can stop participating in the study at any time if I want to.

I give permission to use my data for the purposes described in the information letter.

I give permission to keep my raw data for 10 years after the study ends.

I give permission to use my anonymized data in future research.

Click on 'Continue' if you give permission and want to continue to the questionnaire.

# Part II of the study

## **Dutch participants**

Ik heb de informatiebrief gelezen en begrijp het doel van de studie. Ik heb voldoende tijd gehad om over deelname na te denken. Ik begrijp dat ik te allen tijde kan stoppen met mijn deelname aan de studie als ik dit wil.

Ik geef toestemming om mijn gegevens te gebruiken voor de doelen die staan beschreven in de informatiebrief.

Ik geef toestemming om mijn onbewerkte gegevens 10 jaar lang te bewaren nadat de studie is afgelopen.

Klik op 'Ga verder' als je toestemming geeft en door wilt gaan naar de vragenlijst.

## **Spanish participants**

He leído la carta de información y entiendo el propósito del estudio. He tenido tiempo suficiente para pensar en participar. Entiendo que puedo dejar de participar en el estudio en cualquier momento si lo deseo.

Doy permiso para usar mis datos para los fines descritos en la carta de información.

Doy permiso para mantener mis datos durante 10 años después de que finalice el estudio.

Haga clic en 'Continuar' si das tu consentimiento y deseas continuar con el cuestionario.

### **English translation of the consent form**

I have read the information letter and understand the purpose of the study. I have had enough time to think about participating. I understand that I can stop participating in the study at any time if I want to.

I give permission to use my data for the purposes described in the information letter.

I give permission to keep my raw data for 10 years after the study ends.

Click on 'Continue' if you give permission and want to continue to the questionnaire.

# **D.** Debriefing Forms

### Part I of the study

#### **Dutch participants**

Het doel van deze studie is om te vergelijken in hoeverre native en non-native sprekers van een taal emoties in een tekst hetzelfde uitdrukken en waarnemen. In de studie waarin je zojuist hebt meegedaan, moest je de emotionaliteit in je eigen tekst aanduiden. Dit wordt annoteren genoemd. In een vervolgstudie zal jouw tekst ook worden geannoteerd door anderen. Dit zal worden gedaan door zowel native als non-native sprekers van het Nederlands. Er zijn ook mensen die in deze studie hebben meegedaan en een tekst in het Spaans hebben geschreven. Deze zullen worden geannoteerd door zowel native als non-native sprekers van het Spaans.

Het debat over universaliteit versus culturele specificiteit van emoties wordt al lang gehouden door wetenschappers. Volgens het universele perspectief worden emoties door alle mensen op dezelfde manier uitgedrukt en geïnterpreteerd (Ekman, 1992). Het cultuurspecifieke perspectief daarentegen stelt dat emoties verschillend worden uitgedrukt en geïnterpreteerd in verschillende talen en culturen (Mesquita en Frijda, 1992). Bestaand onderzoek heeft gemengde resultaten opgeleverd en bovendien zijn er nog geen interculturele onderzoeken gedaan naar emotie-expressie en -perceptie in geschreven teksten.

Cultuur vormt menselijk gedrag door middel van een 'self-construal style', d.w.z. hoe mensen zichzelf en hun relatie met anderen in hun omgeving definiëren (Nisbett et al., 2001). Individualistische culturen (zoals de Nederlandse) moedigen de 'independent self' aan, waarbij mensen zichzelf zien als individuen die onafhankelijk zijn en los staan van de sociale context. Collectivistische culturen (zoals de Spaanse) stimuleren de 'interdependent self', waarbij mensen zichzelf als sterk verbonden met anderen beschouwen en afhankelijk zijn van een grotere sociale context (Hofstede, 2001). Deze studie focust zich op de emoties schaamte en schuld. De tekst die je geschreven hebt ging over iets wat je fout hebt gedaan en waarbij anderen betrokken waren. De verwachting is dat in collectivistische culturen (zoals de Spaanse) mensen zich hiervoor zullen schamen omdat ze niet voldoen aan de groepsverwachtingen. In individualistische culturen (zoals de Nederlandse) zal de focus op verantwoordelijkheid voor de fout liggen en zullen mensen zich schuldig voelen over hun gedrag.

Geef je toestemming om je verstrekte gegevens te gebruiken voor dit en toekomstig onderzoek? Ja/Nee

## **Spanish participants**

El objetivo de este estudio es comparar hasta qué punto los hablantes nativos y no nativos de un idioma expresan y perciben las emociones en un texto de la misma manera. En el estudio en el que acabas de participar, tuviste que indicar las emociones en tu propio texto. Esto se llama anotación. En un estudio de seguimiento, tu texto también será anotado por otras personas. Esto será realizado por hablantes nativos y no nativos de holandés. También hay personas que participaron en este estudio y escribieron un texto en español. Estos serán anotados por hablantes nativos y no nativos de español.

Científicos han mantenido el debate sobre la universalidad versus la especificidad cultural de las emociones durante mucho tiempo. Según la perspectiva universal, todas las personas expresan e interpretan las emociones de la misma manera (Ekman, 1992). La perspectiva cultural específica, por otro lado, asegura que las emociones se expresan e interpretan de manera diferente en diferentes idiomas y culturas (Mesquita y Frijda, 1992). La investigación existente ha producido resultados mixtos y, además, todavía no se han llevado a cabo estudios interculturales sobre la expresión y la percepción de las emociones en los textos escritos.

La cultura da forma al comportamiento humano a través de un 'self-construal style', es decir, cómo las personas se definen a sí mismas y su relación con los demás en su entorno (Nisbett et al., 2001). Las culturas individualistas (como la holandesa) alientan el 'independent self', en el que las personas se ven a sí mismas como individuos independientes y separados del contexto social. Las culturas colectivistas (como la española) estimulan el 'interdependent self', en el que las personas se consideran fuertemente conectadas con los demás y dependen de un contexto social más amplio (Hofstede, 2001). Este estudio se centra en las emociones vergüenza y culpa. El texto que escribiste fue sobre algo que hiciste mal y que involucró a otros. Se espera que en las culturas colectivistas (como la española) las personas se avergüencen de esto porque no cumplen con las expectativas del grupo. En las culturas individualistas (como la holandesa), el enfoque estará en la responsabilidad del error y las personas se sentirán culpables por su comportamiento.

¿Das permiso para usar tus datos proporcionados para esta y futuras investigaciones? Sí / No

## English translation of the debriefing form

The aim of this study is to compare the extent to which native and non-native speakers of a language express and perceive emotions in a text in the same way. In the study in which you just participated, you had to indicate the emotionality in your own text. This is called annotating. In a follow-up study, your text will also be annotated by others. This will be done by both native and non-native speakers of Dutch. There are also people who participated in this study and wrote a text in Spanish. These will be annotated by both native and non-native speakers of Spanish.

The debate about universality versus cultural specificity of emotions has long been held by scientists. According to the universal perspective, emotions are expressed and interpreted in the same way by all people (Ekman, 1992). The culture-specific perspective, on the other hand, states that emotions are expressed and interpreted differently in different languages and cultures (Mesquita and Frijda, 1992). Existing research has produced mixed results and, moreover, no intercultural studies have yet been conducted into emotion expression and perception in written texts.

Culture shapes human behavior through a self-construal style, i.e. how people define themselves and their relationship with others in their environment (Nisbett et al., 2001). Individualistic cultures (such as the Dutch one) encourage the 'independent self', in which people see themselves as individuals who are independent and separate from the social context. Collectivist cultures (such as the Spanish) stimulate the 'interdependent self', whereby people consider themselves strongly connected to others and are dependent on a larger social context (Hofstede, 2001). This study focuses on the emotions shame and guilt. The text you wrote was about something you did wrong that involved others. It is expected that in collectivist cultures (such as the Spanish) people will be ashamed of this because they do not meet the group expectations. In individualistic cultures (such as the Dutch), the focus will be on responsibility for the mistake and people will feel guilty about their behavior.

Do you give permission to use your provided data for this and future research? Yes/No

## Part II of the study

## **Dutch participants**

Het doel van deze studie is om te vergelijken in hoeverre native en non-native sprekers van een taal emoties in een tekst hetzelfde uitdrukken en waarnemen. In de studie waarin je zojuist hebt meegedaan, moest je de emotionaliteit aanduiden in teksten die door anderen geschreven waren. Dit wordt annoteren genoemd. De auteurs van die teksten hebben hun teksten ook zelf geannoteerd. Alle auteurs hebben teksten geschreven in hun moedertaal (Nederlands of Spaans). Lezers die één van deze talen als moedertaal hebben en vaardig zijn in de andere taal annoteren alle teksten in deze studie.

Het debat over universaliteit versus culturele specificiteit van emoties wordt al lang gehouden door wetenschappers. Volgens het universele perspectief worden emoties door alle mensen op dezelfde manier uitgedrukt en geïnterpreteerd (Ekman, 1992). Het cultuurspecifieke perspectief daarentegen stelt dat emoties verschillend worden uitgedrukt en geïnterpreteerd door verschillende talen en culturen (Mesquita en Frijda, 1992). Bestaand onderzoek heeft gemengde resultaten opgeleverd en bovendien zijn er nog geen interculturele onderzoeken gedaan naar emotie-expressie en -perceptie in geschreven teksten.

Cultuur vormt menselijk gedrag door middel van een 'self-construal style', d.w.z. hoe mensen zichzelf en hun relatie met anderen in hun omgeving definiëren (Nisbett et al., 2001). Individualistische culturen (zoals de Nederlandse) moedigen de 'independent self' aan, waarbij mensen zichzelf zien als individuen die onafhankelijk zijn en los staan van de sociale context. Collectivistische culturen (zoals de Spaanse) stimuleren de interdependent self', waarbij mensen zichzelf als sterk verbonden met anderen beschouwen en afhankelijk zijn van een grotere sociale context (Hofstede, 2001).

Deze studie focust zich op de emoties schaamte en schuld. De teksten die je gelezen hebt gingen over iets wat de auteur fout gedaan had en waarbij anderen betrokken waren. De verwachting is dat in collectivistische culturen (zoals de Spaanse) mensen zich hiervoor zullen schamen omdat ze niet voldoen aan de groepsverwachtingen. In individualistische culturen (zoals de Nederlandse) zal de focus op verantwoordelijkheid voor de fout liggen en zullen mensen zich schuldig voelen over hun gedrag.

## **Spanish participants**

El objetivo de este estudio es comparar hasta qué punto los hablantes nativos y no nativos de un idioma expresan y perciben las emociones en un texto de la misma manera. En el estudio en el que acabas de participar, tuviste que indicar las emociones en textos escritos por otros. Esto se llama anotación. Los autores de estos textos también han anotado sus propios textos. Todos los autores han escrito textos en su idioma nativo (holandés o español). Los lectores que son hablantes nativos de uno de estos idiomas y que dominan el otro idioma anotan todos los textos en este estudio.

Científicos han mantenido el debate sobre la universalidad versus la especificidad cultural de las emociones durante mucho tiempo. Según la perspectiva universal, todas las personas expresan e interpretan las emociones de la misma manera (Ekman, 1992). La perspectiva cultural específica, por otro lado, asegura que las emociones se expresan e interpretan de manera diferente en diferentes idiomas y culturas (Mesquita y Frijda, 1992). La investigación existente ha producido resultados mixtos y, además, todavía no se han llevado a cabo estudios interculturales sobre la expresión y la percepción de las emociones en los textos escritos.

La cultura da forma al comportamiento humano a través de un 'self-construal style', es decir, cómo las personas se definen a sí mismas y su relación con los demás en su entorno (Nisbett et al., 2001). Las culturas individualistas (como la holandesa) alientan el 'independent self', en el que las personas se ven a sí mismas como individuos independientes y separados del contexto social. Las culturas colectivistas (como la española) estimulan el 'interdependent self', en el que las personas se consideran fuertemente conectadas con los demás y dependen de un contexto social más amplio (Hofstede, 2001).

Este estudio se centra en las emociones vergüenza y culpa. Los textos que has leído se trataban sobre algo que el autor hizo mal y en que otros estaban involucrados. Se espera que en las culturas colectivistas (como la española) las personas se avergüencen de esto porque no cumplen con las expectativas del grupo. En las culturas individualistas (como la holandesa), el enfoque estará en la responsabilidad del error y las personas se sentirán culpables por su comportamiento.

## **English translation of the debriefing form**

The aim of this study is to compare the extent to which native and non-native speakers of a language express and perceive emotions in a text in the same way. In the study in which you just participated, you had to indicate the emotionality in texts written by others. This is called annotating. The authors of these texts have also annotated their texts themselves. All authors have written texts in their native language (Dutch or Spanish). Readers who are native speakers of one of these languages and proficient in the other language annotate all texts in this study.

The debate about universality versus cultural specificity of emotions has long been held by scientists. According to the universal perspective, emotions are expressed and interpreted in the same way by all people (Ekman, 1992). The culture-specific perspective, on the other hand, states that emotions are expressed and interpreted differently in different languages and cultures (Mesquita and Frijda, 1992). Existing research has produced mixed results and, moreover, no intercultural studies have yet been conducted into emotion expression and perception in written texts.

Culture shapes human behavior through a self-construal style, i.e. how people define themselves and their relationship with others in their environment (Nisbett et al., 2001). Individualistic cultures (such as the Dutch one) encourage the 'independent self', in which people see themselves as individuals who are independent and separate from the social context. Collectivist cultures (such as the Spanish) stimulate the 'interdependent self', whereby people consider themselves strongly connected to others and are dependent on a larger social context (Hofstede, 2001). This study focuses on the emotions shame and guilt. The text you wrote was about something you did wrong that involved others. It is expected that in collectivist cultures (such as the Spanish) people will be ashamed of this because they do not meet the group expectations. In individualistic cultures (such as the Dutch), the focus will be on responsibility for the mistake and people will feel guilty about their behavior.

# **E.** Descriptives of Text Annotations

Table 1
Frequencies of Main Emotion Categories

		Authors	(N=60)			Readers	(N=240)	
Main Emotion	f	$\operatorname{Rel} f$	c <i>f</i>	Percentile	f	$\operatorname{Rel} f$	c <i>f</i>	Percentile
COMPASSION	2	0,03	60	100,00	10	0,04	240	100,00
AMUSEMENT	1	0,02	58	96,67	7	0,03	230	95,83
GRATITUDE	0	0,00	57	95,00	16	0,07	223	92,92
JOY	0	0,00	57	95,00	2	0,01	207	86,25
PRIDE	0	0,00	57	95,00	3	0,01	205	85,42
GUILT	35	0,58	57	95,00	127	0,53	202	84,17
CONTEMPT	0	0,00	22	36,67	11	0,05	75	31,25
JEALOUSY	0	0,00	22	36,67	0	0,00	64	26,67
SHAME	22	0,37	22	36,67	60	0,25	64	26,67
ENVY	0	0,00	0	0,00	4	0,02	4	1,67

*Note.* N = 240 for Readers as 60 readers x 4 annotated texts results in 240 ratings.

Table 2

Descriptive Statistics for Number of Words and Sentences Assigned to Emotion Categories

		Authors	(N=60)			Readers	(N=240)	
Emotion								
Category	M	SD	min	max	M	SD	min	max
COMPASSION	.55	.91	0	4	.33	.78	0	4
<b>AMUSEMENT</b>	.25	.75	0	5	.14	.64	0	6
GRATITUDE	.42	.77	0	3	.39	.88	0	6
JOY	.40	.62	0	2	.06	.28	0	2
PRIDE	.40	.87	0	5	.23	.75	0	4
GUILT	1.95	1.46	0	7	2.38	2.07	0	12
CONTEMPT	.70	1.18	0	6	.70	1.28	0	6
<b>JEALOUSY</b>	.23	.56	0	3	.00	.07	0	1
SHAME	1.90	1.60	0	8	1.15	1.74	0	7
ENVY	.57	1.06	0	5	.10	.43	0	3

*Note.* N = 240 for Readers as 60 readers x 4 annotated texts results in 240 ratings.

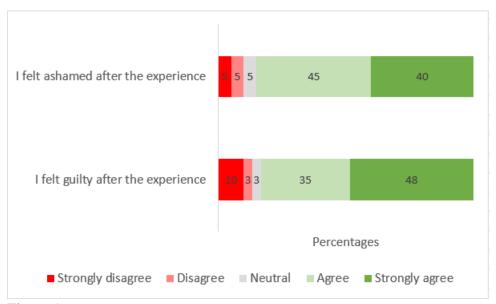


Figure 1

Descriptive Statistics for Intensity of Shame and Guilt felt by Authors as Annotated by Authors

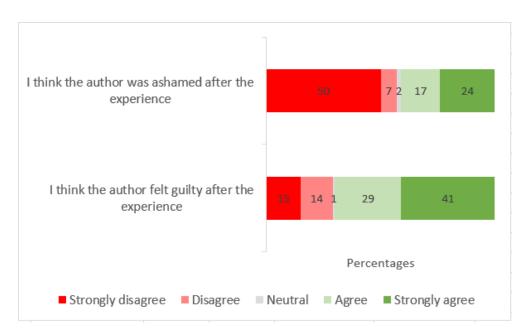


Figure 2

Descriptive Statistics for Perceived Intensity of Shame and Guilt felt by Authors as Annotated by Readers

## F. Examples of Dutch and Spanish Texts and Associated Annotations

### **Dutch text perceived as mainly expressing SHAME**

"Toen ik als kind in de bovenbouw van de basisschool zat was ik niet populair. Ik werd gepest en was het buitenbeentje. De "populaire meiden" hadden in die tijd TMF-plaatjes o.i.d., plaatjes van popsterren enz. Toen ik voor een boodschapje bij Kruidvat was dacht ik die te zien liggen op de toonbank. Donkere pakjes met het TMF logo erop en een mannetje en vrouwtje ofzo, kan het me niet meer exact herinneren. Ik was aan de beurt en achter me stonden nog wat mensen in de rij. Dus ik pak vol interesse zo'n pakje om te kijken of het inderdaad de plaatjes waren. De dame achter de kassa moest erg lachen en de mensen in de rij achter me ook. De vrouw achter de kassa vertelde me dat ik daar nog "iets te jong" voor was. Daarna weet ik niet meer wat er feitelijk gebeurde, maar ik kan me alleen nog herinneren dat ik me een ontzettende sukkel voelde, dat ik me ontzettend schaamde, zeker omdat ik ook nog door een aantal volwassenen werd uitgelachen. Vanwege het pesten was ik toch al erg onzeker en dat volwassenen nu op deze manier naar me reageerden was erg heftig voor me. Ik denk dat ik heb afgerekend en de winkel uit ben gegaan zonder er op in te gaan, maar tot op de dag van vandaag overspoelt me het heftige gevoel van schaamte en onzekerheid als ik aan dit voorval terugdenk."

## **English translation of the text**

"When I was a child in primary school, I was not popular. I was bullied and was an outsider. The "popular girls" at that time had TMF pictures, or the like, pictures of pop stars, etc. When I was at Kruidvat to buy something, I thought I could see them on the counter. Dark packages with the TMF logo on it and a male and female or something, cannot remember it exactly. It was my turn and some people were queuing behind me. So, I eagerly grab a package to see if it were indeed the pictures. The lady behind the counter smiled and the people in the line behind me too. The woman behind the counter told me I was "a little too young" for that. After that I don't remember what actually happened, but I can only remember that I felt like an idiot, that I was very ashamed, especially because I was also laughed at by some adults. Because of the bullying I was already very insecure and that adults now reacted to me this way was very intense for me. I think I paid and left the store without reacting to it, but to this day the deep sense of shame and insecurity floods my mind when I think back to this incident."

- Main emotion: SHAME
- # words & sentences indicating SHAME: 8
- I felt ashamed after the experience: Strongly agree

#### **Dutch readers' annotations**

- Main emotion: SHAME, SHAME
- # words & sentences indicating SHAME: 6, 6
- I think the author was ashamed after the experience: Strongly agree, Strongly agree
- I like the author based on the text s/he wrote: Strongly agree, Strongly agree
- I can understand why the author of the text acted as s/he did: Agree, Strongly agree
- I would forgive the author of the text: Strongly agree, Strongly agree

- Main emotion: SHAME, SHAME
- # words & sentences indicating SHAME: 5, 7
- I think the author was ashamed after the experience: Strongly agree, Strongly agree
- I like the author based on the text s/he wrote: Neutral, Strongly agree
- I can understand why the author of the text acted as s/he did: Agree, Strongly agree
- I would forgive the author of the text: Strongly agree, Strongly agree

## **Dutch text perceived as mainly expressing GUILT**

"Een tijdje geleden was ik in de auto aan het rijden met mijn vriend en ik had geparkeerd bij de bioscoop. We hadden ergens nog een drankje gedaan, ons parkeerkaartje betaald en toen wilde ik weg rijden. M'n vriend had alleen de verkeerde richting aangewezen waardoor ik in een lastige positie terecht kwam. Ik schaafde met de rechterkant van de auto tegen een betonnen blok dat laag bij de grond zat. Vervolgens was de slagboom ook al naar beneden waardoor ik lichtelijke paniek kreeg. M'n vriend had iemand gebeld om het op te lossen maar ik baalde erg van de auto natuurlijk. In eerste instantie leken de krassen mee te vallen maar de volgende dag zag ik dat ik flinke schade had gemaakt op m'n vader zijn auto. Ik voelde me heel naar en schuldig en wist dat ik het hem moest vertellen. Een paar dagen later vertelde ik hem wat er gebeurd was en gelukkig was hij niet boos. Maar ik voelde me er nog steeds erg rot door."

## **English translation of the text**

"A while ago I was driving the car with my boyfriend and I had parked at the cinema. We had a drink somewhere, paid our parking ticket and then I wanted to drive away. My boyfriend had pointed in the wrong direction, which put me in an awkward position. I scraped the right side of the car against a concrete block that was low to the ground. Then the barrier was already down, which caused me to panic slightly. My boyfriend called someone to fix it, but I was very disappointed with the car, of course. At first the scratches seemed to be not too bad, but the next day I saw that I had done a lot of damage to my father's car. I felt very bad and guilty and knew I had to tell him. A few days later I told him what had happened and luckily, he was not angry. But it still made me feel really bad."

- Main emotion: GUILT
- # words & sentences indicating GUILT: 5
- I felt guilty after the experience: Strongly agree

# **Dutch readers' annotations**

- Main emotion: GUILT, GUILT
- # words & sentences indicating GUILT: 6, 5
- I think the author felt *guilty* after the experience: Strongly agree, Strongly agree
- I like the author based on the text s/he wrote: Strongly agree, Neutral
- I can understand why the author of the text acted as s/he did: Strongly agree, Disagree
- I would forgive the author of the text: Strongly agree, Agree

- Main emotion: GUILT, GUILT
- # words & sentences indicating GUILT: 2, 5
- I think the author felt *guilty* after the experience: Strongly agree, Strongly agree
- I like the author based on the text s/he wrote: Agree, Disagree
- I can understand why the author of the text acted as s/he did: Agree, Disagree
- I would forgive the author of the text: Agree, Agree

## Spanish text perceived as mainly expressing SHAME

"Deje un buen sueldo y un buen trabajo en mi país de origen para hacer una visa de trabajo por un año en Países Bajos. Lo que sería la experiencia de mi vida se convirtió en la tumba de mis motivaciones y de mi espíritu. Hasta ahora nada ha salido bien, aún sigo pagando algunas cosas que necesita mi madre en Buenos Aires. Ya he tenido tres empleos básicos y por cuestiones de salud tuve que renunciar al último empleo en un supermercado virtual llamado Picnic. Estoy desempleado, mi dinero se está acabando, no tengo seguro médico y estoy con mucho dolor, solo al otro lado del mundo. Esto es por lejos, la peor decisión de mi vida. Me intriga saber cuánto tiempo tomará recuperarme de este golpe y si volveré a ser como antes. En estos momentos mi vida perdió cualquier tipo de meta u horizonte."

## **English translation of the text**

'I left a good salary and a good job in my home country to get a work visa for one year in the Netherlands. What would be the experience of my life became the tomb of my motivations and my spirit. So far nothing has gone well, I still continue to pay for some things that my mother needs in Buenos Aires. I already had three basic jobs and for health reasons I had to give up the last job in a virtual supermarket called Picnic. I am unemployed, my money is running out, I do not have a health insurance and I am in a lot of pain, just on the other side of the world. This is by far the worst decision of my life. I am intrigued to know how long it will take to recover from this blow and if I will be as before. In these moments, my life lost any kind of goal or horizon.''

• Main emotion: SHAME

• # words & sentences indicating SHAME: 1

• I felt ashamed after the experience: Agree

#### **Dutch readers' annotations**

• Main emotion: SHAME, SHAME

• # words & sentences indicating SHAME: 5, 4

- I think the author was ashamed after the experience: Strongly agree, Strongly agree
- I like the author based on the text s/he wrote: Strongly agree, Neutral
- I can understand why the author of the text acted as s/he did: Strongly agree, Disagree
- I would forgive the author of the text: Strongly agree, Agree

- Main emotion: GUILT, SHAME
- # words & sentences indicating SHAME: 0, 5
- I think the author was ashamed after the experience: Strongly disagree, agree
- I like the author based on the text s/he wrote: Neutral, Agree
- I can understand why the author of the text acted as s/he did: Agree, Agree
- I would forgive the author of the text: Neutral, Agree

# Spanish text perceived as mainly expressing GUILT

"Recuerdo que una vez en un antiguo empleo, habia llegado una nueva vendedora que nos tenia a mi compañera y a mi cansadas ya que era una chismosa y le gustaba estar de lame botas con la jefa, pero no hacia su trabajo, hasta que un dia se metio directamente conmigo, inventandose un chisme que no era cierto, uñy la enfrente directamente en una reunion con los jefes y mis compañeros y le dije tantas cosas feas, junto con mi compañera, me desahogue pero luego al verla callada pidiendonos disculpas y llorando me senti muy mal, senti que hice algo malo y que no debi decirle esas cosas, aunque en mi interior pensaba que ella se lo busco, el fin de todo es que nunca acepte sus disculpas y la trataba indiferente, aunque me sentia mal por dentro, y mi compañera tampoco, hasta que ella renuncio y me quede con el deseo de hablarle y jamas la he vuelto a ver, hasta soñaba con ella eso se quedo pendiente y los sentimientos de culpa se quedaron ahi siempre...."

## **English translation of the text**

"I remember that once in an old job, a new saleswoman had arrived who tired my partner and me since she was a gossip and liked to lick the boots of the boss, but she did not do her work, until one day she messed directly with me, inventing a gossip that was not true, and I confronted her directly in a meeting with the bosses and my colleagues and I told her so many ugly things, along with my partner, I let off steam but then when I saw her quietly apologizing and crying I felt very badly, I felt that I did something wrong and that I shouldn't have told her those things, although inside I thought that she was looking for it, the end of everything is that I never accepted her apologies and treated her indifferently, even though I felt bad inside, and neither did my partner, until she resigned and I was left with the desire to speak to her and I have never seen her again, until I dreamed of her, she remained pending and the feelings of guilt always stayed there ... "

- Main emotion: GUILT
- # words & sentences indicating GUILT: 3
- I felt guilty after the experience: Strongly agree

#### **Dutch readers' annotations**

- Main emotion: GUILT, GUILT
- # words & sentences indicating GUILT: 3, 3
- I think the author felt *guilty* after the experience: Strongly agree, Strongly agree
- I like the author based on the text s/he wrote: Neutral, Neutral
- I can understand why the author of the text acted as s/he did: Disagree, Neutral
- I would forgive the author of the text: Disagree, Strongly agree

- Main emotion: GUILT, GUILT
- # words & sentences indicating GUILT: 4, 4
- I think the author felt guilty after the experience: Strongly agree, Strongly agree
- I like the author based on the text s/he wrote: Disagree, Neutral
- I can understand why the author of the text acted as s/he did: Disagree, Agree
- I would forgive the author of the text: Agree, Agree

# **List of Tables and Figures**

T	ล	h	le	S

Table 1. Interrater Agreement Using Fleiss' kappa (κ) for the Spanish Texts	27
Table 2. Interrater Agreement Using the Intraclass Correlation Coefficient (ICC) for the Spanish Texts	30
Table 3. Interrater Agreement Using the Intraclass Correlation Coefficient (ICC) for the Dutch Texts	31
Table 4. Interrater Agreement Using Kendall's Coefficient of Concordance (W) for the Spanish Texts	34
Table 5. Interrater Agreement Using Kendall's Coefficient of Concordance (W) for the Dutch Texts	35
Table 6. Post Hoc Results for Empathy Towards the Author by Level of Perceived SHAME felt by the Author	36
Figures	
Figure 1. Number of Words and Sentences Indicated as SHAME by Dutch and Spanish Authors. Error bars depict standard errors.	28
Figure 2. Intensity of GUILT felt by the Author as Indicated by Dutch and Spanish Authors.  Error bars depict standard errors	32